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ABSTRACT

This review of the literature examines five issues affecting college faculties in the 1990s and identifies various views on these issues while providing a general overview. A section on multiculturalism identifies it as one of the leading issues facing faculty. This section looks at views on the challenges of racial diversity; racial tension; and increased diversity by gender, cultural background, and disability. A section on organizational factors looks at administrative changes affecting faculty many of which are linked to fiscal considerations. This section covers views on the fiscal crisis, faculty attrition and status, merit pay, and the information explosion. A section on mission raises some broad issues about the mission of U.S. higher education and treats theoretical versus practical applications and university-industry alliances. A section on professional factors addresses approaches to faculty evaluation, staff development, and scholarly communication. The final section looks at personal factors such as burnout, worklife (culture and morale), and the perceived role of teaching. Closing remarks highlight the variety and speed of change in higher education and the consequent stress for faculty. This section also urges institutions to confront changes and tensions in defining and maintaining their mission. (Contains 104 references.) (JB)

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ISSUES AFFECTING THE PROFESSORIATE IN THE 1990s

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Introduction

Faculty members, especially non-tenured faculty members, are inundated with an ever-increasing work load (Austin & Pilot, 1990), coupled with the stringent requirements to become tenured or maintain faculty status. The hazards of burnout, fiscal crises, problems with adaptability to the particular work environment, and the danger of falling behind in the information explosion are all barriers to effective application of faculty members' skills. Compounding the problems facing the professoriate are considerations such as how to accommodate diversity in the student population (Arnold, 1992; Garvin, 1991; Kerr, 1991). Resolving racial conflicts and deterring crimes of violence on campus are becoming increasing concerns of the professoriate (Ikenberry, 1992; Kadish, 1991; Kerr, 1990; Klanwatch, 1993; Comas, 1992; Shao, 1992).

The literature on the broad subject of issues affecting faculty members in the nineties varies somewhat in its treatment of the problems facing the professoriate and potential solutions to those problems. This paper will attempt to reveal divergence in opinions while reviewing the literature in general. In most areas, differences in

opinion are extremely subtle, but the differences are extremely important. Where opinions diverge on a subject, one can gain a whole new insight into the subject. This additional insight is important since the complexities of human interaction cannot easily be exposed, and problems with interaction cannot easily be resolved.

Thus, the common thread throughout the literature is the vision that solving the problems facing the professoriate is no easy task. The literature suggests, in fact, that the cure to a problem can sometimes create additional problems (Jacobson, 1991; Kinney, 1992). One writer gave an example that the First Amendment right to freedom of speech has been curtailed in some instances in an effort to control racial conflicts (Ikenberry, 1992). Naturally this raises the concern that academic freedom of thought also may be curtailed to some degree. In such an instance, the reduction of the potential stressor of racial slurs might create the additional stressor of perceived lost academic freedom.

The literature disclosed that racial tension is not the only result of increased diversity of students. Literature on the subject of diversity varied widely, from diversity by gender to diversity by learning disabilities (Arnold, 1992). There were many writers who studied diversity by gender and the effects of a male-dominated higher education

professoriate on women in the profession (Alpert, 1989; Branson, 1991; Eliou, 1991; Hackman, 1992; Kelly & Slaughter, 1991; Moore & Sagaria, 1991; Sutherland, 1991).

The literature reveals several other areas where potential solutions to problems in academia can, in turn, cause problems. A solution to fiscal problems in a university, for example, might be for that university to enter an alliance with industry. Profitable ventures might eliminate the fiscal crisis in the university, but the literature is replete with other considerations that then enter the picture (Bland & Ruffin, 1992; Bradney, 1992; Buchbinder & Ralph, 1992; Dooris, 1992; Hoh, 1992; Kerlin, 1992; Kinney, 1992).

On the subject of university-industry alliances, some of the literature pointed out that university business ventures can cause the transfer of decision-making authority away from traditional areas of the university for the ostensible purpose of maximizing profits from the business venture (Buchbinder & Ralph, 1992; Dooris, 1992). The implication of this transfer of authority is that the faculty members may perceive a decline in the prestige of their position, and this subsequently could increase the danger of burnout. Since some of the literature suggested that faculty participation in management might be a safeguard against burnout, it is easy to see the dilemma that an administration might face when considering a cure to its fiscal crisis (Bland & Ruffin, 1992; Austin, Rice &

The literature indicates that the complexion of higher education is changing, with an increase in part-time faculty as well as part-time students (Berver, Kurtz, & Orton, 1992; Tight, 1991). The literature revealed that this trend has created new areas that higher education must address. The increase in the number of part-time faculty members has created problems not only for the instructors themselves but for everyone involved, including the other tenure track faculty, the administrators, and the students served by the part-time faculty (Berver, Kurtz & Orton, 1992). Tight (1991) opined that part-time education is more in step with real life.

Several writers recommended that administrators become knowledgeable of the stages of burnout so that preventive measures can be taken. In fact, virtually all of the literature could be construed as addressing some issue that either increased or reduced the risk of burnout (Baltimore, 1991; Basler, 1989; Bedeian, Ferris & Kacmar, 1992; Byrne, 1991; Clouse, 1982; Dey, 1990; Freudenberger & Pichelson, 1980; McLean & Clouse, 1991; Matthews, 1985; Neumann & Finaly, 1991; Ponquinette, 1991; Russell, 1990; Selye, 1975). Financial problems and tenure requirements were examples of conditions that increased the risk of burnout while favorable relationships with colleagues and mentorship programs were examples of conditions that reduce the risk of burnout.

Ponquinette (1991) demonstrated agreement with Baltimore (1991) in suggesting that universities develop a mentorship program since it is the younger, nontenured (novice) faculty members that experience the most stress. She suggested that mentors may relieve some stress associated with being a novice, nontenured, younger faculty member, and that such a mentorship program could ensure that fewer faculty members leave the profession early due to burnout. With such a diverse literature on the subject of issues affecting faculty members in higher education, there are many areas for further study. Clearly, there can never be too much literature that improves insight into complex human interaction within the profession of higher education. The one thing that each piece of literature had in common with the others is that each one added to the reader's insight.

Throughout the literature there is a constant theme that there are no easy solutions to the problems in higher education. This reality is magnified by the fact that the environment of higher education may be changing more rapidly in the decade of the nineties than almost any other decade in this century. Thus, the stress of uncertainty may be the greatest stressor facing the faculty members of higher education.

Multiculturalism Factors

A number of scholarly articles have identified multiculturalism as one of the leading issues confronting faculty members in higher education. The term "multicultural" has become an important new term of academic importance. Hackman (1992) portrayed the changes that are taking place in higher education as a result of the diversity of the faculty, diversity of the student body, and increasing gender equality. She suggested a major shift in how we learn from and work with people of multiple backgrounds and cultures.

Diversity

Literature on multiculturalism includes studies of the influence of diversity in student population as well as diversity among faculty members. Jones (1992), for example, pointed out that multiculturalism is a fact of life, and that there is a logical need to educate our future citizens in accordance with this reality. Furthermore, she stated that institutions are failing to prepare teachers for today's society if they are not providing courses in multicultural education.

In 1991 Lauro Cavazos, former U.S. Secretary of Education, addressed the Tennessee College Association and declared that in order for America to compete in a global economy characterized by interdependence and solve its "pressing problems in global frameworks, our watchword must

be a new respect for the diversity of peoples and their cultures and interests" (p. 1). He suggested such respect would be well deserved because the diversity of the United States makes it better prepared than less diverse countries to meet the challenges created by diversity in international and economic affairs. The diversity of cultures in America provides us with special resources for interfacing in a global market.

Cavazos pointed out that traditionally, the American college student could be characterized as being single, white, and 18 to 22 years of age. Now, the trend is toward a more diverse student body of "non-traditional" students who are married, single parents, disabled, foreign, older and part-time students who will take more than four years to complete the baccalaureate degree. To meet the challenges of the twenty-first century, Cavazos (1991) made the salient point that higher education must produce students who are "equipped with the knowledge and skills necessary for active and successful participation in the economic, political, cultural, and community life of our nation" (p. 5).

He explained the importance of improving the quality of education that we have been providing for minorities and other disadvantaged students if we expect them to move successfully into the mainstream of American life. In referring to the disproportionate numbers of Hispanics, Native Americans, African Americans, as well as students with disabilities who drop out of school, Cavazos (1991)

warned that currently schools are "failing to make education a meaningful experience for these groups" (p. 5). Cavazos (1991) reasoned that education needed to be more challenging for the under-represented members of the population because, "Minority and female students form a growing share of the pool of scientific and technical workers needed by American business" (p. 5). He felt that if these workers are to be adequately prepared, they must complete their education, and higher education must meet the challenge to improve education. Because many students speak a language other than English, Cavazos suggested that colleges of education should require proficiency in a language other than English, and they should hire more minority faculty members and recruit more minority teacher candidates as ways to help improve education.

Cavazos (1991) suggested that higher education should become aggressively involved "in helping to restructure and improve elementary and secondary education....[by] working with the local school board, administration, teachers, and parents" (p. 6-7). He suggested a powerful combination for improving the quality of education in America. First, he favored academic choice which allows parents the right to send their children to the school of their choice. Coupled with that, he suggested school-based management which grants more authority and autonomy to schools, principals, and teachers as a means to improve education. He saw this need

because the governmental bureaucracies have not proved successful in improving education.

Shuller (1990) examined the shift from the traditional student body to today's diverse student population and noted the effect on the academic community. Comparing the increase in the diversity of students to the splitting of the atom, he metaphorically observed, "Smashing the atom is dangerous but it can release productive energies" (p. 3). Thus, the increase in diversity of students may increase the demands placed on faculty members, but the results might be positive. Referring to changes brought on by an influx of students in continuing education, Shuller (1990) concluded:

> On the one hand more 'non-traditional' groups are finding their way on to regular courses; on the other, new types of provision attract students from unfamiliar sources. So the student profile changes, as does the nature of what is being taught. Course structures become more diverse, and the steady rhythm of the traditional academic year becomes punctuated and disturbed by a whole range of short courses. Lecturing and tutorial work has to be supplemented by other teaching approaches, and supported by changes in the way admissions are handled and assessment is carried out, with more extensive counselling and guidance. (pp. 12-13)

Schuller presented a scenario of change that is, indeed, similar to the smashing of the atom in intensity. Yet, he went on to predict that properly channeled, this change could release new vigor in an otherwise moribund academic community.

Learning Disabled Adults. Usually when people think of diversity of students they first think of age and ethnic differences. Arnold (1992) has pointed out that there is a

new dimension to the term diversity with the growing number of learning disabled adults pursuing higher education. He conducted a study to develop an orientation program for college bound learning disabled adults. This study should benefit the professoriate because the orientation program will better prepare these new students.

Diversity by Gender. Park (1992) addressed diversity by gender and found that change is taking place slowly in higher education. She explored the relationship between rank and gender in higher education and found that women are in the minority, and that they are in the lower ranks of the academic hierarchy. Park is not alone in her findings. Several other studies focused on the shortage of women in roles of leadership in higher education. There is a vast amount of literature on the subject of diversity by gender, and the paucity of women in positions of responsibility in higher education is a recurring theme (Alpert, 1989; Eliou, 1991; Hackman, 1992; Kelly & Slaughter, 1991; Moore & Sagaria, 1991; Sutherland, 1991).

Moore and Sagaria (1991) studied the position of women in higher education and noted that women academics are often tokens in departments, and that senior faculty members sponsor or mentor fewer women than men. In addition, prestigious journals that serve as gatekeepers for the various scientific fields exclude women from editorships. It will be difficult or impossible for women as a group to

make full and meaningful contributions unless these barriers are removed.

Sutherland (1991) found, "As yet, there is little to reassure us that women's future advancement in higher education is secure" (p. 134). Sutherland suggested that women choose the positions in which they find themselves in higher education. She noted there are "marked differences" in higher education between the subjects men study and those that women study. In numerous countries, not just the U.S. and Canada, there are more women in the studies of literature, arts, and language than Sciences and computers. Sutherland noted some improvement in the numbers of women in law and medicine, but engineering and technology have remained overwhelmingly dominated by males. Somewhat surprisingly, this also seems to have been true in socialist countries that were thought to have less sex bias.

Another factor that Kelly and Slaughter (1991) mentioned that may affect women's choices of subjects to study is the decline in birth rate, which ostensibly will decrease the need for teachers. In reference to this decline, Sutherland (1991) spotted an area for potential abuse when she pointed out that it may be difficult to discern whether the decline in the birth rate is really reducing the need for teachers, or whether cutbacks in teachers may be the result of politically expedient spending cuts.

Women have traditionally chosen teaching professions but, according to the findings of Sutherland above, the decline in the birth rate might lead to a reduction in the demand for teachers, one way or the other. This reduction in the demand for teachers may have a substantial effect upon the types of subjects women select in the future. However, Sutherland (1991) goes on to state, "Orienting young women toward other subjects is a policy which may fail because these other subjects simply do not appeal to women--and thus their right of freedom of choice of what to learn is lost" (p. 135).

Sutherland suggested that the increase in the number of women entering the study of law and medicine may be an indication women are showing a willingness to change their choice of careers. Nevertheless, Sutherland (1991) found that of those with advanced degrees, the number of women in teaching was disproportionately larger than men. Sutherland (1991) observed that a much larger proportion of women with doctorates in physical or mathematical sciences found employment in teaching.

Sutherland (1991) felt that the teaching profession may be admirable as well as convenient for women, but women should not become mainly the transmitters of knowledge when they also are needed for research and in industry where it is applied. She even suggested that the number of women teachers in higher education may increase. According to Sutherland, several changes are taking place that may make

it increasingly tempting for universities to recruit women teachers. A decline in the prestige of university teaching, coupled with less than competitive salaries, may drive ambitious males away and leave more room for women in teaching, "but this would be a doubtful gain for women" (Sutherland, 1991, p. 139).

Branson (1991) emphasized the importance of allowing women to work in a "male" dominated world because she said the "females" value their opposite, and the female will bring harmony into a "male" dominated society that it could never achieve without the "female." Furthermore Branson (1991) said, "The sensitivities of women must be rediscovered, acknowledged, used, respected" (p. 105). She believed that the federal government, for example, presently encourages women to enter occupations dominated by men as a form of promoting the presence of women for affirmative action purposes. This process is not allowing for the true integration of the "female" which would mean a change in curricula, school practices, and labor relations. She believed the uniqueness of women should be considered and changes made to accommodate the "female".

The literature on diversity of faculty members by gender varied somewhat depending upon the writer's focus. Eliou (1991) concluded that generally speaking, "Women are under-represented in the academic profession" (p. 146). In addition, Eliou (1991) found that women are "severely under-represented in certain academic sectors, especially in those

with a high social status and in which a university career can be combined with profitable external work....[and] in senior academic administration" (p. 146). Furthermore Eliou (1991) stated, "There is inequality of distribution amongst the various ranks of the university hierarchy, to such an extent that women's careers are hindered, interrupted or develop much more slowly than those of their male colleagues" (p. 147). Thus, Eliou focused first on absolute numbers and then noted the shortage of women in positions of importance within the academic community.

Other literature on the subject of women in higher education revealed that the obvious disadvantages listed by Eliou may spawn additional disadvantages. According to Moore and Sagaria (1991), women face problems of a minority class and the resulting disadvantage of being outside the circle of benefits attributed to networking. They noted a 1988 study by the Institute of International Education reported that, in 1988, there were more than 115,000 women and more than 241,000 men from other countries studying in institutions of higher learning in the United States. Furthermore, Moore and Sagaria (1991) contended that one in five students who pursue post-bachelor work in computer science, physical and life sciences, engineering, management, or business may expect to complete his program of study "without taking a single course, working in a laboratory or doing research with even one female faculty member" (p. 185).

The process of learning therefore also has an agenda, whether intended or not, of socializing the students into male dominated repertories of knowledge, research methods, behaviors, attitudes, and values. These students will also have an international bias for their entire careers since a "global network" is developing and can be expected to flourish, based upon the male-dominated research universities in the United States (p. 185). By this conclusion Moore and Sagaria have, in effect, warned that even women who study abroad will not be immune to male dominance in higher education. Thus, Moore and Sagaria suggested that women face somewhat of a "Catch 22" in that networking offers the means by which they could increase their numbers in higher education, but such networking is difficult while women are so clearly in the minority.

Alpert's (1989) study found that "not until 2149 will 50 percent of full professors be women. Furthermore, the gap in salaries between women and men has increased since 1975" (p. 12). The discrepancy in salary levels may be widely known, but the time line suggested by Alpert paints an especially dismal picture for women in higher education.

Other literature on the subject of diversity is more specific. For example, Kelley and Slaughter (1991), addressing the issue of diversity by gender only, found "In most countries women are not academics or leaders in higher education. In the United States, for example, where females are 52 percent of all tertiary level students, they are 26

percent of all full and part-time academics" (p. 9). Also, Kelly and Slaughter observed that women are clustered in "female" fields like the humanities, education, and nursing, or they are employed in junior colleges more than men. The men who serve as professors and administrators still hold the power and authority in the institution.

Diversity by Background. Some literature addressed the diversity in the backgrounds of the students, suggesting that some students might require greater supervision than others. Grossi (1992) indicated a need for the campus to return to the concept of in loco parentis, which has been dropped by most campuses. Because young adults still need a form of parental guidance, campuses may be experiencing more acts of violence due to the inability of some young adults to handle all of their new-found freedom and the lack of structure in their lives. The literature reveals that the acts of violence on campus frequently are related to racial intolerance (Ikenberry, 1992; Kadish, 1991; Kerr, 1990; Klanwatch, 1993; McComas, 1992; Shao, 1992).

Garvin (1991) contributed to the literature addressing the diversity of student by background. Garvin addressed the move from traditional lecture style teaching to the use of discussion format in the classroom when he stated, "How, then does one accommodate individual differences? All students are not equal. Some have advantages in prior training or knowledge, while others suffer from psychological or personal blocks that impede active

participation" (p. 290). In evaluating the traditional lecture format versus the discussion format, Garvin (1991) posed the following questions, "Should discussion leaders ignore such problems as shyness or excessive sensitivity to criticism? Do the norms of fairness require instructors to treat all their students the same" (p. 290)?

Garvin answered the questions raised by a shift from lecture to discussion format by noting that education should be seen as more than the simple transfer of information. Humanitarian concerns also should come into the big picture. Instructors may make certain allowances or provide "special opportunities" for individual students from disadvantaged backgrounds. Although all class members might not approve of this approach, fundamental fairness to each individual would benefit the group in the long run. Garvin apparently believed that the instructor should consider all of the individual differences of members of the class and adapt the instruction according to the needs and abilities of each individual.

Racial Tension

Some of the literature addressed the stresses in society in general that can exacerbate problems with diversity of the campus population. Ikenberry (1992), for example, indicated that the decade of the nineties will see an increase in concern for the quality of campus life. The reasons for the concern are the stresses in society such as

increase in crime, alcohol and drug abuse, and racial tensions. Since the college campus has become a microcosm of society, these types of problems will occur with more frequency on campuses as they occur more often in the society at large. Shaw (1992) was concerned about new issues that will impact higher education in the next several years. He joined those who are concerned about the rising number of racial incidents on campuses.

Campus Climate. Ikenberry (1992) believed that "improving the campus climate depends not only on building a sense of community, defending academic freedoms, easing racial tensions, and responding to student activism, but also on addressing alcohol abuse and crime" (p. 5). Ikenberry (1992) addressed the problem of alcohol abuse when he stated, "Student alcohol abuse is a problem in its own right on many campuses; incidents of vandalism, sexual assault, and other forms of antisocial behavior are also frequently related to alcohol abuse" (p. 5). Thus, Ikenberry agreed with Grossi that university campuses need to return to the principle of in loco parentis to help alleviate these problems.

The literature suggests that campus climate will become an increasingly important factor students consider when deciding upon a university to attend. As stated above, Ikenberry (1992) felt "the focus of the decade may well be on the quality of the environment in which students, faculty members, and staff teach, learn and work" (p. 5). He

predicted that universities may well be judged by the degree to which they subdue the problems of alcohol abuse, racial tension, and sexual assault.

Academic Freedom. Ikenberry (1992) went on to state that one example of an attempt to reduce, or at least deal with, racial tension on campuses is the restraint of free speech. He defined academic freedom as "the ability of faculty members and students to think, speak, write, and act with a sense of freedom and personal security" (p. 4). Ikenberry (1992) contended that academic freedom is a key element in the campus climate, but he reported a decline in academic freedom, stating, "Recently, however, faculty members and students on some campuses have reported that they face restraints, whether under the rubric of so-called politically correct speech or otherwise" (p. 4).

The loss of academic freedom may not be that great a danger, however, considering the recent case of Jeffries v. City University of New York, 820 F. Supp. 741 (S.D. N.Y. 1993), where a jury found that the university had violated the First Amendment rights of Professor Jeffries by removing him from chairmanship of his department for comments he made during a speech. The jury found that the university should restore Professor Jeffries to chairmanship of his department. Obviously, the jury found the derogatory statements the Professor made about Jewish people on campus were just the kind of thing that fellow faculty members would have to endure, in the interest of free speech. The

potential for increased racial hostility as a result of this decision is also obvious.

Acts of Violence. There is a large amount of literature on the effects of increased racial diversity of the university campus population. As higher education becomes more and more open to all races, the issue of dealing with racial tension on campus will grow in importance. On the issue of racial tension, Kadish (1991) noted that newspapers have reported horrid accounts of conflicts "among white males, blacks, chicanos, and women on the campuses of the country" (p. 109). He is concerned with the "breakdown of civility", which is broader than discrimination, violence, or struggles for power.

Kadish (1991) contended that universities, in general, are not prepared to deal with potential racial tension and crimes of violence. In support of this, he related an incident that reveals a major problem at many institutions. he used an episode in which two black women were verbally accosted and demeaned on the basis of their sex and their race by two intoxicated fraternity men. Based on this episode, Kadish raised the question of what kind of behavior called for punishment, and what kind of punishment would be appropriate for such behavior. He pointed out the need to put a great deal of thought into the subject when he stated, "If every time men and women propositioned one another it constituted an offense there would be no end of offenses" (p. 109). The implication is that a well-considered set of

definitions and guidelines should already be in place in order to deal with each incident as it occurs.

When it comes to correcting the problem of racial tension, however, Kadish (1991) believed that codes of civility are always arbitrary to some extent. He felt that perceptions of civility are best left up to the individual because "the more 'minded' relations become the less likely the degradation of the casual assault" (p. 110). He seems to have concluded that individuals hold the key to the solution to racial strife, and that the key is to provide a setting for the development of a more high-minded outlook on the part of the individuals involved, whether they be the potential assaulter or the potential target of the assault. If this is true, then higher education itself might serve to redirect the individual's focus to more important issues than offending or taking offense.

McComas (1992), President of Virginia Polytechnic Institute and State University, explained that the issue of racial tension on campuses involved more than just black-white issues. He addressed the broader problem of racial tensions when he commented on a 1989 report made by the U.S. Department of Justice that found that racial incidents had occurred on 77 campuses, and that the number of reported racial incidents had doubled from the previous year. He (1992) added that the report showed, "while the majority of incidents have been related to black-white issues, anti-semitic and anti-Arab incidents have been on the increase as

well. The incidents have not been limited to students; a few also involve faculty and staff" (p. 43).

The Southern Poverty Law Center published a special year-end edition of the Klanwatch Intelligence Report (1992). That edition had two articles addressing campus hate crimes. One article reported that "hate crimes raged on U.S. school and college campuses in 1992, resulting in numerous brutal assaults and the murder of at least one student. But while campuses seethed with tension, many education officials seemed to ignore the situation" (p. 1). The same article included a 1990 report by the National Institute Against Prejudice and Violence that found that "25 percent of minority students will become victims of violence based on prejudice and 25 percent of those students will be revictimized" (p. 2). The article also noted a 1991 report from the National Association of School Psychologists "that 900 teachers were threatened each hour and that 40 were assaulted each hour on school property" (p. 3). Sara Bullard, Director of the Southern Poverty Law Center's Teaching Tolerance Project said, "Educators share a crucial responsibility for addressing hate crimes effectively...most hate crimes are committed by the country's young people" (p. 3).

"Klanwatch documented 279 instances of hate crimes and related activity on U.S. school and college campuses in 1992, but Director Danny Welch says that is only a sampling of what occurred" (p. 6). According to Gerald Arenberg,

Executive Director of the National Association of Chiefs of Police in Miami, Florida, "Fifty percent of all crimes are not reported, and the percentage of unreported hate crimes is even higher" (p. 6). In some instances the victims of racial abuse may be embarrassed to come forward, but in other instances it may be the institution that fails to report the incidents. Bad publicity may be the major reason college and university officials want to deny that hate crimes and other violent acts are occurring on their campuses.

Ikenberry (1992) found that the increase of racial tension and crime on most campuses left most administrators at somewhat of a loss, stating, "How to ease the tension and avoid incidents that diminish the quality of life is not always clear, and campuses continue to experiment with approaches that will provide increased understanding, sensitivity, and harmony" (p. 4). Maybe students need to be reminded of the Golden Rule and given some moral standards. As mentioned above, Ikenberry (1992) suggested that institutions need to reconsider the concept of <u>in loco parentis</u> because the students are exhibiting less than acceptable behavior with their acts of violence and abuse.

Ikenberry (1992) predicted a surge in student activism. He noted, "In a recent survey, record numbers of college students indicated that they had participated in student protests while in high school and, not surprisingly, record numbers indicated that they planned to participate in campus

protests" (p. 5). This represents a change from the attitudes of students of the 1980s who showed more concern for their personal career ascent than for social issues.

Kerr (1990) saw the racial tension on campuses turning into a racial crisis. His third scenario of possible events proposed were possible in the decade of the nineties was entitled "The Coming Racial Crisis in American Higher Education". He (1990) suggested, "The trend line of racial incidents on campus is rising" (p. 12). This trend is a problem that Kerr contended will continue. He (1990) gave the following reasons to support his belief that racial tension may increase to the point of racial crisis when he stated that the "population will be composed mostly of persons who are less adequately prepared academically, less likely to complete the studies needed to receive a degree, and more likely to require remedial education, financial assistance, and academic, occupational, and personal counseling" (p. 12). Kerr (1990) asserted that perhaps the greatest opportunity of the decade will be "the consideration given by higher education to the welfare of what have historically been the 'undeserved' elements of youth from low-income families and under-represented minorities" (p. 12). While this may serve as the long run solution, the greater diversity of the student population may generate even more stress and tension in the short run.

According to Boyer (1991), colleges and universities in America need to return to one of the original purposes for

establishing colleges in colonial America. Specifically, Boyer (1991) stated, "The colonial college was expected to educate and morally uplift the coming generation" (p. 4). Most institutions have been more successful at educating than raising morals. In fact, most institutions have relinquished the responsibility for providing moral guidance. Boyer's conclusions suggest that the lack of moral guidance in some young people's lives has contributed to the increase of violent crimes on campuses.

Organizational Factors

Literature on the various elements affecting faculty members in higher education covered a number of. Virtually all of these administrative considerations were related in some way to the fiscal condition of the university. Thus, the majority of the literature in this area was directed at the fiscal crisis in higher education.

Fiscal Crisis

In addressing the issue of fiscal problems in higher education, Kinney (1992) pointed out that in the 1960s there was indiscriminate expansion to accommodate the increase in students. He noted that American higher education has been experiencing a recession since the 1970s. He gave the following formula for the recession: reduced government support for research, coupled with sharply increased operating expenses. Kinney (1992) understood that under

these adverse circumstances "the idea of making university functions self-financing has taken on a special appeal" (p. 29). Therefore, he (1992) suggested that universities turn to corporate support for financial assistance as federal funding decreases. The issue of University-industry alliances represents a major source of literature in its own right and is explored in more detail under the applicable heading.

Ikenberry (1992) discussed the serious fiscal reality facing higher education. He observed that a sense of pessimism, concerning the decade of the nineties, had emerged because of an increasing belief that a weakening national economy may make it increasingly difficult to meet the needs of higher education. Ikenberry (1992) summarized the problems facing higher education when he said, "Sluggish economic growth means less spending, fewer federal, state, and local tax dollars, reduced investment earnings, tax-law changes that will lessen private giving, and constraints on institutions' ability to raise tuition" (p. 6). Furthermore, the federal government is trying to cut expenditures in order to balance the budget, and one can expect cuts in expenditures for higher education as a result. Eckaus (1990) stated, "Although dollar amounts of federal assistance to higher education increased over the last ten years, the government's share of total revenues declined substantially, while private and internal sources of revenue made up the shortfall" (p. 5). He added that

federal dollars are already fewer in relation to overall revenues to higher education. Ikenberry (1992) agreed with Eckaus (1990) that even though there has been an absolute increase in federal monies allocated to higher education in the recent past, the demand to reduce the federal budget, coupled with a slower economy, can only lead to fewer federal dollars in the future for higher education.

Hanson and Meyerson (1991) also agreed that higher education is facing a fiscal crisis, and they saw the following troubling signs for the economy:

- A downward trend in the GNP rate of growth since the 1970s
- A trade deficit since 1982 after 85 years of nearly continuous trade surpluses
- A persistent federal budget deficit in the billions of dollars since 1974
- Wall street's "Black Monday," about which investment banker Felix Rohatyn has said, "We came within half an hour of really blowing up the Western economic system." (p. 2)

Eckaus (1990) took the position that "if the country slips into...economic stagnation...then higher education, too, would fall on hard times [because]...donations from private sources would also stagnate" (p. 58). He also concluded that government financial support would not be as available as it had been with a stronger economy. This decrease in financial support may determine which schools future students choose to attend. With less financial support Eckaus believes there will be more competition for students among public and private institutions of higher education.

Enrollment. Another factor that will have a negative budgetary impact on higher education is the fact that the

"number of white 18-year-olds in the U.S. population will decline approximately 16 percent by 1992, reducing demand for enrollment by higher education's primary customers. However, foreign students will fill some of the vacancies" (Eckaus, 1990, p. 5). This decrease in the number of students available to enroll will put an additional strain on most institutions' budgets.

Budig (1992) reviewed population trends and noted the U.S. Department of Education projects that "the number of high school graduates will bottom out at 2.5 million in 1993-94, then increase to a record high of 3.2 million by 2001" (p. 103). Budig found that this drastic change in such a short period of years will have a profound effect on the professoriate. He predicted that the "student bulge...will increase the burden on faculties and facilities" (p. 103). Budig (1992) noted, "Adding to the difficulty will be a shortage of teachers; perhaps half of America's tenured faculty will retire in this decade" (p. 103).

Budig also noted that institutions have been aware of the trend toward fewer bright students entering the higher education teaching profession. He named inadequate compensation as the reason the bright and talented students have been entering the more profitable professions of business, industry, law, and medicine. He concluded that the challenge confronting higher education in the 1990s would be to develop "new ideas to add luster to the teaching

profession. No plan will succeed, however, without first addressing the basic issue of the reward system" (p. 104).

Eckaus (1990) suggested more students will enroll in public undergraduate programs than in private undergraduate programs as a result of the decrease in available financial support. He also predicted that "to the extent that there is more federal funding for graduate than for undergraduate education, through research grants as well as scholarship and fellowship programs...this would tend to increase the concentration of [students in] private universities in graduate education" (p. 61).

Lewis (1990) did not agree with Eckaus on the public/private question, when he said, "It's not obvious that the public institutions come out ahead in the quality competition....I think that the private sector may have some advantages" (p. 87). He suggested that an advantage for institutions in the private sector over public institutions would be the fact the politics of public institutions are sometimes very cumbersome.

Fundraising. Hall (1992) found that universities could benefit from the decentralization of some university functions and specifically studied the impact of decentralization as it relates to revenue from potential donors. The central university development officer (CUDO) had traditionally been the person in charge of fund raising for the university. She found that the principle reason for the lack of success of the CUDOs was the fact that they

frequently were considered academically too unsophisticated to deal with the friends of faculty members and alumni who were the potential donors.

Hall noted the recent trend toward using an academic unit development officer. She noted that using a person who knows the specific academic subject matter proved much more successful in raising money. She found in a study completed in 1989 that "61 percent of research universities" (p. 569) used an academic unit development officer. She also noted that law and medical schools had pioneered the use of an academic unit development officer because of the specialty of the prospective donors. She determined that the results had proved remarkably successful.

Hall (1992) also found that decentralization of the development function increases the involvement of the deans and the faculty in every area of development. More people become available for managing relationships with many more potential donors. She noted, however, that deans and faculty lack the necessary background, and they need a senior development professional that can build the experienced staff necessary to provide an executive level of program management and leadership. With more academic leaders actively participating in development, the university is better able to manage a major gift program which "enhances the university's ability to obtain private support" (Hall, 1992, p. 581).

Hall contended that "the relationship the university's academic leaders build with prospective donors is the key to actualizing their potential" (p. 581). Since the literature suggests that higher education will be relying more heavily upon private support, the move from the CUDO fund raiser to the specialized academic unit development officer fund raiser may represent a viable solution to the financial crisis that higher education is experiencing.

Decade of Change. Shapiro (1990) listed the following factors that place pressure on budgetary decisions in higher education:

- There is an increasing demand for student support services.
- The possible elimination of mandatory retirement is seen by some to threaten, forestall, and/or make more expensive important aspects of an institution's capacity for self-renewal.
- The increasing cost of responding to the complexities of government regulations....
- We face a declining youth population with an increasing at-risk segment just as demand for well-trained employees will be rising....(p. 70)

Here, Shapiro has offered his list of factors that affect all institutions of higher education in a general way. Other literature has suggested that each institution must look at those facts that are peculiar to that institution.

According to Jacobson (1991), many academic leaders fear their institutions will be faced with the tradeoff of sacrificing either student access or academic quality even after the economy improves. Some officials have said that neither state appropriations nor tuition rates will grow

fast enough to finance both student access and academic quality as effectively as in the past. In reference to the article by Jacobson, Kinney (1992) saw these tradeoffs as barriers that hinder higher education when he stated, "It is proposed that these problematic 'tradeoffs' may take a wide variety of forms, including enrollment caps, cuts in faculty, larger class sizes, fewer course offerings, tuition increases, cuts in student services, and others" (p. 27). If fears of these tradeoffs are justified, then higher education will need to take measures now to find a solution.

The consensus appears to be that higher education is more sensitive than ever before to the changing economy. According to Hansen and Meyerson (1990), the number of students in higher education increased fourfold between the 1949-50 and 1979-80 school years. In spite of the reduced number of people in the traditional college age population and high tuition costs, there has been an increase in enrollment during the last decade as well. Hanson & Meyerson (1990) saw the following as troubling signs for higher education in the 1990s:

- Annual increases in the Higher Education Price Index (HEPI) which have exceeded annual increases in the Consumer Price Index (CPI) since 1982.
- A shift in current fund revenue sources from predominantly government funding in the 1970s to more volatile internal and private funding in the 1980s.
- The sometimes questionable readiness of entering American freshmen, who for instance, in an analysis of international mathematics testing for advanced twelfth-grade mathematics students,

ranked next to last among 13 participating nations.

- A change in output--the number of master's and doctoral degrees awarded to foreign students increased 55 percent and 42 percent, respectively, between the mid-1970s and mid-1980s, while the number of these degrees awarded to U.S. students actually declined during the same period.

- The increase in questions and criticism by the public and political leaders about the quality and value of the education provided by America's colleges and universities. (p. 1)

Shaw (1992) determined, "The pressure on education, including higher education, to contribute to a revival of the competitiveness of the U.S. economy has never been so great" (p. 25). He explained changes in the economy that have affected higher education. He (1992) noted that our economy "has gone quickly from being the world's greatest creditor to the world's greatest debtor and may undergo some adjustments. We have been living beyond our means (including the means to support higher education), and this cannot go on indefinitely" (p. 25).

Shaw observed that a large number of faculty members, hired in the 1960s will be retiring, and the vacancies created will raise new issues of concern. He foresees many battles being fought over the manner in which vacancies are filled. Women and minorities will vie for some of these positions, and hiring percentages of these women and minorities will represent one of the major issues that higher education must face.

In addition, Shaw (1992) noted that the large number of buildings constructed in the 1960s will need to be replaced

or renovated. He expressed concern about funds that will be needed for buildings "in an economy that is likely to be growing only half as rapidly as in the 1960s. Productivity increases are now only half what they were in that decade. Where will the money come from" (p. 25)? The implication of Shaw's findings is that financial concerns will continue to plague higher education well into the future.

Kerr (1990) remarked that higher education cannot escape history. He said the decade of the 1980s was a status quo decade; it was a nonhistorical decade, and decision-makers enjoyed a free ride. He believed that the 1990s would be a decade of substantial change, repeating the history of an earlier decade. He mentioned the other decades in the twentieth century that had experienced great changes. According to Kerr, the 1990s will be most similar to the decade of 1910-1920, which Kerr defined briefly as, "World War I: women's suffrage movement on campus; economic depression; and the period of political reaction after World War I" (p. 6).

Kerr presented several scenarios of what can happen in the decade of the 1990s. He cautioned that some scenarios would only take into account a single major aspect of events of the 1990s and would not encompass the other possible aspects that may interact. He pointed out that no scenario could totally prepare one for all unforeseen developments.

The first scenario Kerr (1990) discussed was entitled "Driving the Money Changers Out of the Temple." He

explained, "Colleges and universities inherited a protected status as descendants of the churches from which they originally evolved...this status...is now under attack" (p. 9). Up to now, higher education has been enjoying the benefits of a successful economy in the United States, but negative changes in the nation's economy may have a detrimental effect on institutions.

Lindsey (1990) considered the business income of some institutions of higher education, and, in conjunction with the need to reduce the budget deficit, stated:

> Given the inevitability of change and current congressional attitudes, I think it is time that we consider a thoroughly heretical idea. With the exception of charitable donations, which must be handled separately, I think we should consider having our colleges and universities, and all of their functions, treated as taxable corporations. (p. 25)

Richard R. Spies, Financial Vice President of Princeton University, strongly disagreed with Lindsey's (1990) suggestion that the federal government should tax higher education like a for-profit private business. Spies listed several managerial differences between for-profit private business and not-for-profit higher education. One example of a managerial difference Spies (1990) gave was the fact that "Adam Smith would not understand a business that insists on sustaining its allegiance to one product line--the liberal arts--even though many of its customers want a more relevant, more vocation-oriented offering" (p. 96). This raises questions such as whether higher education will change to a more business-like approach, and whether

administrators will give up allegiance to a form of education that has proved useful to society--the liberal arts. Even if higher education institutions could be operated in a more business-like manner, Spies did not see a way to apply the same measurement to higher education as has been applied to industry in determining whether higher education should retain its tax-exempt status.

Donald Kennedy (1992), President, Stanford University, discussed the change in the relationship between the modern research university and the federal government. He recognized the newly perceived relationship between government and the higher education community after several members of Congress explained that research universities were just another interest group. Kennedy (1992) responded to this earthshaking news by stating:

> That was big news for people who had always thought themselves special. After all, universities are nonprofit organizations devoted to the public welfare and accustomed to a certain level of popular regard. Why, all of a sudden, had we come to be perceived by many members of Congress and their staffs as akin to Big Oil? (p. 13)

The news of this new unfavored treatment was disappointing, but the results of this attitude in Congress could be devastating. This is reminiscent of the remarks made by Lindsey (1990) when he suggested taxing the business income of universities. Kennedy (1992) stated that now "universities are in the same 'private purpose' category of bond-issuing entities as K-mart and McDonalds" (p. 13).

Perhaps the trend toward implementing Lindsey's suggestion is already in place.

William P. Gerberding, President, University of Washington (1992), addressed the issue of the increasing need for universities to cultivate a viable relationship with governors and legislators. Since state government does provide financial support for public institutions of higher education, a more healthy respect for those involved in the political process is necessary. He warned that institutions of higher education should not over-promise especially in the area of improving the local economy. Gerberding (1992) gave the advice, "Long term cultivation of the political arena, the media, and the business community is essential. Grand pronouncements and mountaintop preaching seldom produce useful results" (p. 11).

Lindsey identified the median income of students and their families as another factor affecting the economic condition of higher education. A downturn in the economy would lower the median income and decrease student enrollment because of the inability of students and families to meet the costs of higher education. On the other hand, "continued growth which results in higher median incomes and larger government contributions...would have quite different consequences" (Lindsey, 1990, p. 62). The nation's economy has a direct effect on higher education, regardless of the public or private status of the institution.

Solutions. Derek Bok, President of Harvard University, is not anxious about the future of higher education. He disagreed with the proposition that institutions should be discouraged about their financial future. Bok (1990) had a more positive perspective. He contended that higher education can be very resourceful in solving problems, and he predicted that there could be many unanticipated events that could have a positive impact on the outcome. For example, Bok (1992) pointed out, "Perhaps our greatest protection lies in our growing importance to the society that sustains us. So long as this trend continues, society may find it more difficult, rather than less, to allow our institutions to decline in quality" (p. 77).

Bok recalled negative past predictions concerning higher education that did not come true. He contended that we should consider the current predictions as just food for thought, and we should not become totally discouraged. Bok had confidence in the resourcefulness of higher education employees to produce solutions to problems that arise.

Other studies suggest that the solutions to which Bok referred will not necessarily be the same for each institution. Lewis (1990), for example, cautioned that each institution must develop individual solutions to the problem of fiscal shortages based upon each institution's unique set of circumstances. To understand better what forces influence our institutions, he suggested that there be a continuing process of analyzing, planning, and projecting.

Sample (1991), departing president of State University of New York, Buffalo, provided excellent insight for the leaders of institutions of higher education concerning the fiscal crisis of the 1990s when he gave his farewell address. Sample warned that America's higher education must meet the challenge "to do more with less." Contrary to popular belief, Sample felt that it is not impossible to do more with less without sacrificing quality. He predicted that only those institutions that learn to do more with less will be able to improve academic quality in the decade ahead. Sample's suggested solution will be especially challenging for higher education.

The literature suggested that universities can have a positive impact on the economy and resolve the financial problems of the individual institutions by taking advantage of the university's research role. Ikenberry (1992), President, University of Illinois, stated that institutions, for several decades, have placed greater and greater emphasis on public service and research in their missions. He also noted that the most rapid acceleration in the research function occurred in the 1980s "as the nation focused on the health of the economy and on long-term economic competitiveness" (p. 2).

Ikenberry (1992) explained the connection between the research function and the nation's economy when he remarked, "Support grew in government and business for an expanded research and development role for U.S. universities, along

with an expectation that institutions of higher education would make increasing contributions to the economic health of the nation" (p. 2). Government and industry have invested in research at universities and will continue to invest as long as quality research contributes to society.

Faculty Turnover

One problem associated with the issue of adaptability to the higher education work environment is the problem of faculty turnover. In addition to the actual expenses incurred with turnover such as recruitment and training of replaced employees, an increase in faculty turnover can be costly to the reputation of the college and demoralizing to the students.

McBride, Munday, and Tunnell (1992) surveyed community college faculty located in eleven southern states to assess the propensity of faculty to leave, based upon the relationships among role ambiguity, role conflict, and job satisfaction factors. They found that as job satisfaction decreased, propensity to leave increased. As role conflict increased, propensity to leave increased. Furthermore, the propensity to leave was more greatly influenced by role conflict than by role ambiguity.

Manger and Eikeland (1990) studied the factors that predict a staff member's intention to leave a university. They found that "collegial relations" have a remarkably high relationship to decisions by faculty and support personnel

to stay with or leave an individual institution. Manger and Eikeland (1990) concluded that it is difficult to identify "exactly what may be good or bad with the collegial climate" (p. 289). Not surprisingly, the data showed that job satisfaction also was directly related to "collegial relations." Staff members who were planning to leave found their collegial relations less satisfying than those planning to stay. Surprisingly, staff members viewed collegial relations as more important than the "salary factor".

Closely related to faculty turnover is the issue of faculty replacement demands. Montgomery (1992) designed a study to monitor faculty replacement demands in a large public university. He recommended that decisionmakers continue to monitor the impact of a projected buildup of faculty in the 56 year-old and over category in each college.

Faculty Status

Donna E. Shalala (1992), former Chancellor of the University of Wisconsin, Madison, and current Director of the Department of Health and Human Resources, saw the need to raise the status of faculty members in higher education. She offered, as an example, the incident that occurred at a student anti-war demonstration held at Columbia University twenty years ago, when she said, "A now-famous piece of film appeared on television news...Someone was preaching about

the university--its dignity, its prestige, its reputation--when a faculty member...said...'We are the university'" (p. 34). She believed that these four words would be as true today as they were then. Yet, Shalala (1992) observed, "Their essential truth and their ramifications seem to have faded from our collective academic consciousness during the 1970s and the 1980s" (p. 34). Shalala (1992) concluded that "nothing is more important to the future of the academy than the recognition that faculty are the university--its lifeblood, its connective tissue, its heart...and its conscience" (p. 34).

Shalala advocated raising the faculty member's role to that of senior partner status. She believed that the key to academe's survival, especially during lean times, would be for the faculty to be more participatory in the enterprise of the institution. To guarantee that faculty will obtain the role of senior partner, Shalala (1992) proposed, "We will need a creative resculpturing of traditional ideas. We will need to turn back the clock, all the while mindful that we are rocketing with the speed of a time machine into the institutional roles of the future" (p. 34). The process of empowering faculty members that Shalala recommended will provide higher education an opportunity to tap into the best resources of higher education.

In her study of the new faculty experience, Whitt (1991) found results similar to those of Manger and Eikeland (1990). According to Whitt (1991):

> Analysis of the data revealed five recurring themes in the experiences of these new faculty: (1) collegiality, (2) the school's attitudes and expectations regarding new faculty members, (3) the role of department chairs, (4) workload, and (5) the feelings of new faculty about their experiences...
>
> Collegiality was a high priority for new faculty, and they brought with them from past settings high expectations for collegial relationships in the SOE, [SCHOOL OF EDUCATION]. The new faculty looked forward to a work environment characterized by shared values and commitments and collaborative research. (p. 182)

Thus, these two studies, Manger and Eiklund (1990) and Whitt (1991), agree that collegiality is a high priority for those in the profession of higher education, and that unsatisfactory collegial relations rank highest in predicting intentions to leave a university.

Palmer and Adams (1992) explained how the decline in the economy in the Northeast is forcing cuts in the educational budget and is creating a fiscal crisis in higher education in that region. Governors of Maine and Connecticut are deferring pension payments. If this kind of action continues in the region, it may impact faculty by encouraging them to move to other parts of the country.

The strain of moving to a new region can affect productivity. Tabachnich (1992) proposed steps that colleges and universities can take to lessen the trauma of moving to a new campus. He suggested that faculty relocation programs should become a standard part of any hiring package. Based on national studies indicating measurable declines in their salaries, morale, and job

satisfaction, Kerlin (1992) found that the financial strains of the public universities were affecting professors.

Merit Pay Programs

Another issue involving the work environment of the professoriate is that of merit pay programs. Thorpe's (1992) study on merit pay programs presented recommendations for the development and implementation of an administrator evaluation program.

Insufficient funding for both merit raises and cost of living salary increases is a common dilemma in higher education. Miller (1992) conducted a study to determine faculty members' perceptions of merit pay. He found that faced with a choice, faculty prefer an across-the-board cost-of-living adjustment rather than a merit pay system. Miller revealed the fundamental difficulty in structuring a merit pay system when his study revealed that faculty members viewed teaching as more important than research and research as more important than service in determining an evaluation procedure for merit pay.

Miller found that the faculty did not feel that a merit pay system could be implemented fairly. Also, faculty members perceived that merit pay systems cause friction among faculty. Merit pay not only did not improve faculty relations, but it also failed to build positive self-esteem. Respondents in Miller's study distinctly indicated that merit pay does not build positive relations between faculty

and administrator. Miller (1992) advised that "consulting with faculty members may be particularly important behavior to administrators who are implementing merit pay" (p. 12). Involvement of the faculty in developing and implementing an evaluation procedure would obviously prove beneficial to faculty as well as the administration.

Information Explosion

Some literature on the information explosion touches on the effects of it on faculty members of higher education. Goodenough (1991), for example, suggested the small group case discussion method as a possible solution to the problem of the information explosion in teaching medical students. He explained that information was not being shared efficiently among members of the medical community, and he sought to determine the cause. Goodenough (1991) identified the cause of this problem as "a lack of community among physicians that creates isolation and reluctance to seek help from colleagues" (p. 83). He then joined the administrators and teachers who had developed New Pathways, which was an attempt to prepare physicians for the medical practice of the future. Goodenough (1991) explained that the New Pathways program used "small-group case discussions to teach medical sciences...although students also experience traditional laboratory and clinical work, standardized formal testing, supplementary lectures, and computer-assisted learning" (p. 84). He believed that

small group discussions can have a bonding effect that might foster a more liberal exchange of information.

One of the most prominent aspects of the information explosion is the rate at which society moved into the information age. Thornburg (1991) discussed the different ages our society has entered, and he cited Alvin Toffler (1990) who explained how much faster society is moving from one age to the next. He pointed out that the agricultural age dominated society for almost 6000 years. Then, the industrial age dominated society for only 300 years. Thornburg (1991) agreed with Lynch and Kordis (1988) that the information age may dominate for only 30 years before it too is largely displaced by other ages such as the productivity age, followed by the age of imagination, with still others to follow.

Thornburg explained that a new age does not totally displace the prior age. He gave as an example the fact that agriculture is still vitally important and will continue to be. What Thornburg (1991) suggested was that "as each age comes into view, we are being given another ball to juggle... [and] some part of our society is still operating with all the other ages we have ever had" (p. 107). A juggling act may be the most accurate term to describe faculty members of higher education as they attempt to prepare students to work in the different ages.

A major challenge facing faculty members which Thornburg (1991) discussed is the rapidity of societal

change, and the impact it will have on the professoriate. He compared the present generation of faculty to prior generations, stating that in the past "the prevailing world view stayed constant for a long time... Instead we are being bombarded by increasingly rapid change until we reach the point where 'flux' will become the new flow" (p. 107). More than ever before, faculty members of higher education need to prepare for additional change and develop the ability to be flexible.

The end of the cold war with the Soviet Union, its dispersement into independent nations, and the breakdown of the wall between the two Germanies have caused a change of focus for America, both politically and economically. In the last three years, text books about World Civilizations have become outdated as soon as they were published. Ikenberry (1992) contends, "Internationalization will challenge U.S. higher education to review and recast the mainline academic program to reflect the reality of a changed world.... Internationalization is likely to touch the lives of all students and faculty members" (p. 6).

Thornburg (1991) made an interesting point when he stated that management consultant Tom Peters "went from 'Searching for Excellence' to 'Thriving on Chaos' in less than ten years" (p. 107). Referring to the increase in the rate of change, Thornburg (1991) stated that:

> There are two likely outcomes from increased rates of change in society--unbridled chaos, or the opportunity for phenomenal growth and development. The path that is chosen depends on several factors. First, if we

> adopt a "victim" mentality in which we see ourselves as being blown around by forces out of our control, then we will get sucked into whirlpools of despair [thus killing] the human spirit.
>
> If, on the other hand, we see ourselves as proactive participants in the creation of our own future, we can harness the hurricane forces of change and direct them in ways that lead to a higher quality of life for all our people. (pp. 107-108)

Thus, the manner in which higher education confronts change will be the deciding factor in how effective higher education will be in the future. When teachers convince the students that they have faith in the students' ability to confront change, the teachers will light a fire under the students. The other side of that coin is the wet blanket of discouragement and lack of trust that may put out the fire already started by a student.

Another factor in changing to a more global society is the need for developing entrepreneurism. Miller and Clouse (1993) stated that "Entrepreneurism is a response to a market place that is faster and more demanding than in the past, and a work force that demands more active involvement" (p. 7). They added that educators would be well served if they developed the entrepreneurial skills of business leaders. Miller and Clouse (1993) also reported, "Strong differences appear in profit motives and risk taking between the two groups. Business leaders were perceived to be both risk takers and profit oriented, while educators were less profit oriented and less likely to take risks" (p.7).

In a nutshell, Miller and Clouse (1993) identified the differences between the two groups and reported that:

> Through the interview process it was stated that persistence, long suffering, and endurance were often listed as necessary traits for an entrepreneur. A high level of self motivation and energy remains necessary to sustain entrepreneurial efforts. An ability to be self directed and in control at all times characterizes many business leaders. Educators expressed the need for similar traits, but admitted that a structured environment in a university provides a protective umbrella from economic failure. (p. 7)

Miller and Clouse observed how the world has changed throughout the course of history, and especially during the last decade, the rate of change has rapidly accelerated with technology making our world smaller and more accessible. They contended that we are now facing the reality of competing in a global economy during the twenty-first century. Miller and Clouse (1993) emphasized the fact that:

> The need to integrate business and academic endeavors is more important today than ever in the past. We must collectively develop business-education partnerships that will utilize the latest technology including multimedia education to transmit knowledge and information freely among these two sectors. There is a strong need to learn how to develop entrepreneurship skills in order to live in a global economy during the 21st century. (p. 8)

Gone are the days where the American work force was the best and most innovative in the world. Evidence shows that higher education in the United States cannot afford to be slow to react to change and progress. The entrepreneurial spirit must be fostered if the students are to compete successfully in a more global society.

Mission

Brown and Comola (1991) said that America's shame is its schools because we lack commitment to learning. They asserted that students apparently are not taught to their fullest potential. They determined that America's educational system had fallen behind other industrialized nations through a comparison of the American educational system to that of the Japanese who "believe in education from the cradle to the grave...[while] we [Americans] have been more concerned with discrimination and education of the less talented than training the leaders of the next generation" (p. 43). This suggests that the composite mission statement of American education is flawed.

According to Brown and Comola (1991), another reason Japanese students score higher than American students is the fact that "any Japanese student with ambition toward college spends an additional two to four hours per day in study, often with a special tutor... [and] Japanese students are forced into a rigid curriculum of mathematics, physics, and other sciences" (p. 43). The rigid Japanese curriculum contrasts greatly with the American curriculum that allows students to choose easy elective classes that assure graduation with the least amount of difficulty. Brown and Comola (1991) found that the most important difference between the American and the Japanese educational systems lies in the fact that in the Japanese system, "the Japanese student is socialized, learning cooperation, work habits,

and attention to detail to make him a good employee" (p. 44).

Brown and Comola pointed out that science education in America is a major problem. Americans lag behind Japanese significantly in this area. Although there is an urgent need for improvement in technological training in America, Brown and Comola warned, that emphasis on technological specialty can shift too far away from the purpose of higher education and the society it serves. They gave, as an example, the abundance of specialization in the field of medicine and suggested revision in medical school curriculum. They suggested that a limit be placed on the number of medical students that study a specialty or that choose to study surgery because there is a shortage of general practitioners and an overabundance of surgeons and specialists.

Some of the literature suggested that the mission of the American higher educational system, rather than the drive of American undergraduate students, might be at fault for the difference in performance between American and Japanese students. Shao (1991) believed undergraduate education has been slighted in the past due to the criteria used to grant tenure. According to Shao, a professor's publications record and reference letters are the most important criteria used in tenure decisions. Shao (1991) suggested, "If you're a mediocre researcher but an excellent teacher, you're unlikely to get tenure" (p. 126).

Theoretical vs. Practical Application

Ikenberry (1992) found that a conflict had developed because of the need to address the questions about institutional purposes and priorities in the 1990s. Ikenberry (1992) stated, "Given the diversity of institutions and changing societal expectations, this debate over mission should not be surprising" (p. 2). Furthermore, he pointed out that the debate has expanded to include governors and governing boards, parents and donors, and authors and editorial writers. At issue is the question whether the "recent growth in importance of the research mission and the emphasis on scholarship and publication have come at the expense of undergraduate education" (Ikenberry, 1992, p. 3). He voiced concern over the national debate on purpose and priorities, and he stated that a reasonable degree of consensus concerning the relative importance of undergraduate education is needed to maintain the health of higher education in America.

Referring to a special report by Boyer (1991), issued by the Carnegie Foundation for the Advancement of Teaching, Ikenberry (1992) stated that colleges and universities should measure themselves by values determined by their own distinctive mission rather than external measurements of status. Ikenberry (1992) also noted, "Boyer urged that the meaning of scholarship be redefined, stating that the 1990s may be remembered as the decade of undergraduate education" (p. 3).

There also was literature on developing a mission around the structure of undergraduate programs. Kelly (1992), for example, undertook a study to determine whether the Regional Planning Program at Western State College had fulfilled its mission. The mission stated that the Regional Planning Program should offer integrated education or education that incorporates the theoretical with practical applications from several related disciplines to solve problems. She found in her study that integrated education was not being offered, and that there was a need to create an integrated educational program.

Thornburg pointed out that some institutions have already written into their mission statement a plan for offering an integrated education, which represents a movement in the direction of producing the Renaissance person. Thornburg (1991) defined the term, "Renaissance person [as]... anyone who has a broad range of interest that cuts across several domains of study" (p. 105). According to Thornburg's conclusions, one might say that when institutions of higher education require students to take courses in various subjects, unrelated to their major area of study, they may be encouraging the second Renaissance.

Lindsey (1990) disagreed with educators who "argue that the trend to a more technical society will require more emphasis on the kinds of expert training offered by technical schools" (pp. 18-19). He supported a liberal arts curriculum that teaches a student how to think, how to

approach a problem from various viewpoints, and how to increase creativity. He believed that future students will need to be creative problem solvers. Lindsey (1990) stated, "A world in which society is exposed to the full force of economic change is one in which creativity and thought will be at a premium" (p. 19).

Referring to the education of future professionals, Kadish (1991) believed that future professionals would be practicing arts, not simply applying acquired knowledge. He went further with this reasoning to state that the application, in the case of professionals, means the use of judgment, not merely logical or inductive application of what was acquired in school. Kadish concluded, therefore, that it is this judgment that makes the person a professional, and that these universities should establish a mission that accommodates this reality.

Kadish seemed to favor higher education with a greater emphasis on practical application when he suggested that the institution should find jobs for students during their education that follow from their own talents, tolerances, and situations as well as what the institution is able to offer in the way of work experience. He found that the complexity of the job was not even a deciding factor. Thus, the work experience alone apparently was sufficient to make practical application possible.

Kadish indicated, however, that he opposed higher education strictly geared to practical application when he

warned of the dangers of overlooking the importance of a liberal arts education. Kadish offered two choices that had to be made by higher education. Either the institution could abandon liberal arts in favor of an education that concentrated strictly on practical application, or the institution could include a liberal arts education that could shape "the very manner in which we pursue our subsistence and our lives" (Kadish, 1991, p. 188). He perceived that minimizing liberal arts education would be barbarism, and that the inclusion of liberal arts education in curricula would give more meaning to the achievements of technology. Thus, he felt that the inclusion of a liberal arts education could actually enhance the advancement of technology if society maintained a balance between technological training and the traditional liberal arts. In fact, Kadish concluded that by including a liberal arts education, "the achievement of that technology is not thereby precluded; science is not retarded. Rather, they are given a further dimension of meaning" (p. 188).

Cochran (1992) discussed the evolutionary nature of higher education in general. He provided a chart that showed the evolution of higher education from the nineteenth to the twenty-first century, reflecting the goals of faculty and the direct outcome expected of the student. In the nineteenth century, the dominant faculty theme was intellectual development, the major faculty characteristic was that of scholar, and the expected educational outcome

for students was to learn facts. Next, in the twentieth century the dominant faculty theme was research development, the major faculty characteristic was research/scholar, and the expected educational outcome was for students to develop applicable skills and abilities. Then, in the twenty-first century he proposed the dominant faculty theme will be professional development, the major faculty characteristic will be teacher/scholar and the expected educational outcome will be for students to understand concepts. Cochran's projection of the major faculty characteristic of teacher/scholar in the twenty-first century, as compared to the twentieth century faculty characteristic of researcher/scholar, is basic to his reasoning that less emphasis should be placed on research as a criterion for tenure, and more emphasis should be placed on teaching.

Cochran (1992) believed that "the complexities of modern campuses have virtually eliminated the singularly-minded teaching professor. Gone, too, on most campuses, is the position of the highly productive researcher who has little skill or time to fulfill teaching responsibilities" (p. 4). With the emphasis on research one can agree with Cochran's statement that gone are the days when teaching was faculty members' only obligation.

Shao (1991) points out that the practice of the highly productive researcher not teaching still exists at Stanford University. "Faculty can even 'buy out' of teaching by using grants to pay part of their salaries. Temporary

teachers pick up the slack" (p. 126). Shao gave examples of how research tends to take precedence over instruction. Obviously, where grants represent 28% of the school's research and instruction budget, the people who win the grants become stars. One can reasonably conclude that unless things change, teaching will fall into more and more of a secondary role.

Bradney maintained that the theoretical approach to legal education should not be given up for the practical approach. Bradney (1992) offered the following in support of his opinion:

> The experience of university law schools, both here and abroad, has been that scholarly aims are not comparable with the short-term goals of professional interests. The history of university law schools suggests that to seek to assimilate the needs of industry and the needs of the university is to destroy the separate identity of the university. (p. 18)

In addition to stating his opinion on distinguishing the theoretical approach to legal education from the practical approach, Bradney also discussed the appropriateness of allowing closer contacts between law universities and industry. He studied the need for and consequences of a greater contact among industry, the professions, and the universities. He noted that university law schools in Britain have increasingly sought a more scholarly approach, observing that during this century they have increasingly ignored the market and stated their role in purely academic terms. He pointed out experience has shown that scholarly aims are not compatible with short-term

goals of professional interests. Bradney predicted that incorporating the needs of industry would destroy the identity of the university.

Thus, Bradney obviously does not support the recent theory that there should be increased contact between the universities and industry. He contended that university law schools should continue to distance themselves from the legal profession. Bradney (1992) argued the fact that "Universities might have intellectual goals of their own, independent of the economic or social structures of any particular society, seems to have been something which has largely escaped the attention of those advocating increased contact between industry and universities" (p. 9). He endorsed the traditional theory that law schools should be less concerned with instructing the students to be lawyers and more concerned about teaching students about the nature of law. Bradney's views coincide with those expressed in the articles by Buchbinder & Newson (1992) and Hackman (1992), namely, that law universities have a higher purpose than to surrender control to business interests.

Adapting to Change. Clouse (1992) noted that the schooling process is doomed to be unsuccessful unless it adapts more quickly to fit the dimensions of the next century. He notes that our society has transformed drastically as it has moved into the information age. He reasoned that schooling must be able to reflect this new environment, along with its customs and values. This

sluggishness toward change, according to Clouse, has existed for at least twenty years and has become widespread. Specifically, Clouse (1992) stated, "We have moved from an Agrarian society through an industrial society and now into an information age. In order for our students to be successful in the twenty-first century, major changes must occur in the schooling process" (p. 283).

Cochran (1992) declared that change is inevitable in higher education, and he attempted to provide vision for faculty members. According to Cochran, the shift from the industrial age to the information age would initially have a traumatic effect on a large segment of the professoriate. He predicted that it would be quite a challenge to move the "institutions that have become firmly entrenched in the values of the twentieth century (industrial age) into the twenty-first century (information age)" (Cochran, 1991, p. 5). This transition, however, will be the force that he predicts will transform the role of the faculty member in higher education from research/scholar to teacher/scholar.

For those who are willing to recognize the change in direction, Cochran stated that it would become an even greater challenge to focus on the primary responsibility of higher education. Cochran (1992) defined that primary responsibility as "creating intellectual activity that stimulates teaching and learning" (p. 5). He believed that creating intellectual activity will develop a holistic perspective including teaching, learning, and scholarship.

Such a process defines faculty members as teacher/scholars. "It forms an integrated continuum where the various forms of scholarship complement teaching, teaching fosters continued scholarship, and learning naturally flows from these relationships" (Cochran, 1992, p. 5).

Cochran's message is clear: the decade of the nineties provides opportunities for change and reform. He believed that reform needs highly effective leadership that is willing to adhere to the four major premises of his book. The four premises are:

"1. Change requires the willingness to challenge the status quo.

2. Change depends upon new alternatives being presented.

3. Change encourages those involved to rethink the process.

4. Change requires leadership that is action-oriented" (Cochran, 1992, p. 9).

Shaw (1992) observed that ethical practices are under attack, and that this may result in an increase in efforts to impose external control on higher education. Shaw (1992) said, "An [sic] historical law continues to operate...the more trouble that arises with higher education and the more criticisms voiced about it...the more efforts there will be...to impose external control" (p. 25). Thus, he has observed one more reason institutions of higher education had better be flexible enough to change as the need arises.

Realignment of Teaching Practices. Driscoll, Nagel, Kreiter, and Chapman (1992) conducted a study that "focused on discrepancies between practices taught in university course work and practices observed in clinical settings" (p. 3). The study found the discrepancies to be more pronounced than had been anticipated. Student teachers reported that the practicing teachers were not conducting classes according to the methods and procedures they were taught in their course work. They noted that the practicing teachers did not diagnose and assess the classroom students' needs, abilities and skills. Practicing teachers ignored pre-test scores and made capable students perform redundant assignments, and they made no changes in their lessons when students failed to learn the subject matter. One student teacher remarked, for example, "that even when assessment indicates confusion or lack of understanding, the week proceeded as 'planned' according to page numbers of texts or schedules in the plan book" (Driscoll et al., 1992, p. 8).

Driscoll et al. suggested that the remedy to this problem was for university professors to meet with classroom teachers as well as with school administrators to discuss solutions to problems. The professors informed administrators and teachers about practices being taught in university course, and teachers and administrators were able to identify areas that should be modified to correspond to the practical classroom setting. Educators benefitted from this study because they realized that "improvement of

teaching requires collaboration in the context of mutual respect and understanding, with parity of leadership and shared decision making" (Driscoll et al., 1992, p.22).

Bywater (1990) noted that research universities do not value freshmen and sophomore students, and they prefer community colleges teach these "lowly" students. Bywater (1990) stated that what makes matters worse is:

> The excellent teaching that does take place at the research university rarely gets to the students who will benefit the most from it: freshmen and sophomores. They often are taught by the teaching assistants (TAs), by the "burned-out", or by young assistant professors on the make, who often see it as their duty to weed out the unprepared. (p. 75)

Bywater contended that the community college should be given credit for what it does well, teaching this group of students. He argued that the community college should not try to emulate the research university in this respect. To demonstrate the danger that community colleges might fall into this trap, Bywater related a personal experience where the president of the community college where he had been teaching was pressuring the faculty to teach "arena-sized classes". It was obvious to Bywater (1990) that the president "[had] not yet come to grips with the potential of the community college to do a better job of educating freshmen and sophomores than can be done at the research university" (p. 80). Bywater reasoned that the president was not aware of the success of the community college in higher education because the president's only experience was with the research university model of education.

University-Industry Alliances

Another consideration affecting faculty members is the existence of university-industry alliances. There are several recent studies on this topic, including a study by Hoh (1992). Hoh's study investigated what must be altered in the area of intellectual property law to avoid obstructing collaborative research between academia and industry. In another study, Daniels (1992) determined the full range of factors that distinguish successful from unsuccessful university-based new venture development.

University-Based New Ventures. Specifically, Daniels' (1992) found that successful entrepreneurial new ventures "(a) originate from university-based new venture development (UBNV) centers, (b) pursue leading-edge innovations, and (c) have the potential to become substantial market-driven enterprises rather than no growth (or low growth) organizations" (p. 1). Daniels (1992) described university-based new venture development as "a process whereby technology is first researched and developed in the university environment and secondly commercialized in the marketplace" (p. 4). Daniels (1992) identified two types of organizations involved in the UBNV development process. One type of UBNV center would remain in the university environment, and the second type would be operated "as a separately owned and managed new venture in the marketplace" (p. 4). Conceivably, a university could receive substantial

revenues from successful developments, alleviating many of the financial problems facing the institution.

Universities possess an abundant technology base with which they can begin new ventures. With the slowdown in the economy, universities now have greater incentive to use university technology in order to initiate successful new ventures. Daniels (1992) gave Polaroid and Xerox Corporations as examples of successful new ventures based on university-born inventions, stating that "both typify the potential for growth, the market value of some university-based technology, and significant long-term return on investment that can be realized from university technology" (p. 2).

Recent examples of successful UBNV spinoffs further illustrate their desirability. Smilor, Gibson and Dietrich (1990) reported UBNV start-ups from the University of Texas at Austin and listed some successful spinoffs. Tracor became a Fortune 500 organization, and Dell Computers is one of the fastest growing UBNV spinoffs in the United States. After three years of operation, this UBNV spinoff has grown to over 550 employees.

The definition Daniels (1992) used in his study defined UBNV development as any new business venture that meets the following four conditions:

> (a) Produces and sells a product or service originating from university research.
> (b) Has an off-campus business office (non-private residence) with a separate telephone number.
> (c) Is founded by a faculty member, research associate or graduate student, and, [sic]

> (d) Is started concurrent with or immediately after employment or association with a university. (p. 5)

Daniels (1992) found that new products originating from UBNV spinoffs should undergo in-depth product testing in the research and development laboratory to "measure reliability, design, operating cost and performance. After satisfactory results have been obtained, product commercialization is often achieved by listing the product in a catalogue or by sales force promotions" (p. 287).

Daniels found that to be successful, UBNV centers would need to focus on developing "market driven" technologies rather than "technology driven" technologies. His reasoning for this finding is the fact that a technology product and the market needs for that product must be joined early in the product's life cycle for it to be a commercially successful product. He also noted that UBNV spinoffs are usually most successful when they fill a "niche" in the marketplace where there is less competition.

According to Kinney (1992), earmarked research appropriations to colleges and universities have increased from $225 million in 1988 to more than $684 million in 1992. Kinney noted that these earmarked awards are made without competitive review of the merits of the project. He also pointed out that funding for agricultural biotechnology, for example, increased from $150 million from 1988 to $500 million in 1990, based on the recommendation of the National Research Council's Board of Agriculture. He was especially

concerned about what the exploitation of profitable technologies will do for--and to--the universities. He believed that among those profitable technologies, genetic engineering would be one of the biggest money-making activities at American universities during the 1990s, whether the projections for biotechnology expenditures in general proved true or not.

Colleges as Catalysts. Schneider (1992) recognized the importance of university-industry alliances when she stated that the wide array of economic resources possessed by public universities could contribute to economic development. Schneider (1992) noted that the key roles the public universities should fulfill are "economic research and analysis, capacity building for economic development, development of human resources, technical assistance to business, transfer of technology of industry, basic and applied research on new products and production processes, and stimulation of entrepreneurship and new business development" (p. 7). She strongly believed the economic downturn of the nineties placed demand on public universities to "return an adequate portion of individual and business contributions to taxpayers" (Schneider, 1992, p. 80).

Schneider (1992) realized that higher education is an asset, and universities can take advantage of their position to strengthen themselves while enhancing their missions and contributing to their public. She felt an examination of

the appropriate roles of the public university might increase its programs' quality in the three mission areas of teaching, service, and research. Schneider (1992) suggested a review of the university's mission may "increase enrollment, and build its resource base by securing additional funds. The determination of successful organization and administration of economic development programs is critical to their success, and may satisfy both internal and external publics" (p. 9).

Schneider found that industry can benefit from the three missions of the university when she stated the basic mission of a university is teaching, and businesses should make use of the quality teaching available at the university. Schneider (1992) explained, "Corporations have continuing needs for effective education and for training of new and existing employees" (p. 17). Another part of a typical university's mission is research. Schneider (1992) recognized the compatibility of university research and industry objectives when she stated, "Pure research completed in a university laboratory and the applied research finalized in a corporate laboratory are not incompatible; indeed they can be most complementary" (p. 17).

The third mission of the university that Schneider discussed is service. A university provides many services and makes available many resources to the business world. An example of the resources available are the extensive

library materials and reference services. Other services businesses should utilize are the abilities and knowledge of the university faculty members, specifically designed service programs, and consulting services for small businesses.

Schneider indicated the key consideration for attracting and developing high technology industries in many of the regions has been the close alliance of industry with higher education. Schneider (1992) contended, "Colleges can play an important role as catalysts in the transformation of economic development from manufacturing to information-based industries. In order to insure economic growth, state governments should develop policies to encourage relationships between businesses and colleges" (p. 24).

Schneider stated that universities should nurture a working relationship with the business and industrial community. Schneider (1992) noted the following ways universities could maintain open channels of communication with industries:

> Top management from business and industry should serve on the institution's advisory committees in order to have input for the planning of programs; (b) the institution should try to do business with the local business establishment whenever economically feasible and thus develop positive relationships; (c) members of the institution should meet the business and industry representatives to determine if specific services or training might be provided by the institution to upgrade the skills of the employees; and, (d) personnel from business and industry who have expertise in certain areas should be invited as guest speakers at the institution. (pp. 26-27)

These are positive and creative steps administrators at colleges and universities should consider implementing if they wish to improve the relationship between industry and institutions of higher education. She reiterated that vocational technical training has proved successful in the role it has played in training the American worker. Schneider (1992) found, "two-year colleges have proven especially adept in delivering occupational training for adults, particularly those seeking part-time training.... In many other states, two year colleges have gradually assumed a more dynamic role in their states' economic development program" (p. 27). Her study represents one more piece of literature that suggests all levels of higher education must rise to the challenge of improving the economy.

Buchbinder and Newson (1992) examined university-industry alliances and looked at some potential pitfalls in the area of decision-making procedures. Looking at the experience with Canadian universities, they concluded that, according to the prevailing university-industry strategy, it would be preferable if the research functions arising from the contracts between research universities and industry "are not subject to the policies or decision-making procedures of normal collegial bodies...[Canadian universities] usually have separate boards and are not accountable for their actions or initiatives to the collegial decision-making bodies of the host university"

(p. 14). They stated that these new structures allow more room for managerial decision making than the more traditional bodies like faculty councils, senates, and departments. Despite this tongue-in-cheek discussion of how expedient it would be for universities to surrender control to business interests, Buchbinder and Newson (1992) closed their article with the warning that academic leaders who see a higher purpose for the university should respond powerfully against this perceived panacea. Hackman (1992) expressed agreement higher education should hold to the tradition of teaching and preparing students, providing service, and conducting research, and that education should not concern itself with being a business.

Dooris (1992) also studied university-industry alliances, concentrating specifically on the relative impact of organized research units as compared to research conducted through traditional academic departments. Dooris (1992) recommended that "when considering the advantages of organized research units, policymakers should be careful not to underestimate the importance of academic departments" (p. 190). He explained the vital role individual academic departments play, and he acknowledged the value of organized research units. Dooris (1992) warned administrators, "Policymakers should be cautious before creating policies and structures that aggressively compete with, or inadvertently undermine, the integrity of colleges and department. Organizational mechanisms that are sensitive to

traditional academic structures" (p. 191) will have greater influence with the faculty and the whole university in a desirable and beneficial manner.

Professional Factors

Faculty Evaluation

Valentine (1992) compiled a list of performance criteria with descriptors in his book about effective teacher evaluation. His list could easily be adapted for evaluating faculty members in higher education. In fact, faculty members that become involved in developing an evaluation model for their institution would find Valentine's book most informative and beneficial in the development process.

Since every organization has sacred cows and shields, as Cochran (1992) points out, faculty evaluation seems to raise a sacred shield in higher education. He is alarmed that some faculty members are very apprehensive about being evaluated because of fear, or mistrust, of peer and administrative use of the evaluation data. In fact, some faculty use the defense that "teaching cannot be evaluated." According to Cochran (1992), the "belief in this myth makes higher education a public laughing stock...In truth teaching can be assessed as rigorously as research and publication...[by] systematically collecting data from a variety of sources...to validate teaching performance"

(pp. 14-15). In order for teaching to be equally rewarded and receive equal status with research, Cochran advocated that the sacred shield blocking acceptance of teacher evaluation must be sacrificed.

Scholarship. Another sacred shield surrounds the issue of scholarship evaluation, which Boyer (1987) feels needs careful attention. Teaching and scholarship need to stay closely connected. He discussed the relationship between evaluation of teaching and scholarship. He contends that not all professors are or should be publishing researchers, but they should be first-rate scholars. Boyer defined a scholar as one who stays abreast of the profession, knows the literature in his/her field, and effectively communicates this knowledge to students. He was concerned that weakening faculty commitment to scholarship would undermine the undergraduate experience.

Boyer endorsed evaluation of scholarship, and he listed different ways to evaluate scholarship besides just publishing articles in journals or books. A scholar could write a textbook, lecture at conferences, develop new teaching techniques, and create a learning environment in the classroom. He felt that these activities should be evaluated by peers in order to determine whether a faculty member is staying professionally active.

Boyer concluded that faculty members in higher education can stay abreast of the profession, without the need for constant publication, by knowing the literature in

their field and proving their knowledge through their effectiveness in the classroom. In such a case, it would be the effectiveness of the teaching and the currentness of the teaching methods that the evaluators would have to measure.

Cochran (1992) agreed with Boyer on the importance of evaluating scholarship and teaching. Cochran contended that the process of evaluating scholarship requires more than merely counting the number of presentations, publications, grants, and awards. Cochran (1992) is also concerned that the absence of sound evaluation procedures will leave college teaching at the mercy of those who "continue to promote the dichotomy between teaching and research. Simply put, if the profession does not effectively evaluate the totality of teaching and devise alternative modes to assess all aspects of scholarship, the professoriate will abdicate an important professional responsibility" (p. 16). With the issue of accountability being vitally important to taxpayers, donors, and parents, faculty must realize that their involvement in developing the evaluation procedure is vital to their career. If faculty members do not take responsibility for evaluation procedures, they may lose their right to participate, and the evaluation process will not include their insight. The next danger might be loss of academic freedom.

Cochran (1992) recognized that "changing the culture of academia will not be an easy task" (p. 18). It is difficult for faculty members to see the need for evaluation

of teaching and scholarship. Faculty view it as infringing on their academic freedom in the classroom. This perceived invasion of their sanctified classroom is a sacred shield that must be discarded, or the perceived infringement upon academic freedom will become a self-fulfilling prophesy.

There is already discord among the faculty of most research universities concerning the way teaching receives fewer rewards than research at such universities. Taking note of this trend, Boyer (1991) challenged the practice of favoring research over teaching and called for balance in the treatment of both the research function and the teaching function.

Although research and publication should arguably remain the key criteria by which the performance of most faculty will be assessed, Boyer felt that the integration and application of teaching also should be valued. A large percentage of students at research universities are undergraduates, and the institution owes these students a quality education. In order to motivate more of the staff to teach, these universities should offer salary incentives to professors who are willing to devote most of their time to teaching. Boyer (1991) believed that "such recognition will signify that the campus regard[s] teaching excellence as a hallmark of professional success" (p. 58). According to Boyer, teaching and research are both vital to the success of research universities. Rewarding excellence in teaching might be difficult, however, since it is much

easier to determine the success of research professors than teaching professors. Nevertheless, he recognized the need for additional incentives for those professors who are primarily involved in teaching. Cochran (1992) agreed with Boyer that teaching should receive higher status than it currently receives, and he recognized the same problems associated with rewarding effective teaching. The issue Shao has exposed is that excellent teachers may not be granted tenure, and this raises the additional question: who will be teaching in higher education if the excellent teachers are not granted tenure.

The administrator's use of participative change (bottom up change) could produce a willingness on the part of faculty to give up these protective shields. Administrators in higher education should prefer participative change, but if the faculty member refuses to cooperate, then directive change (top down change) may be imposed on faculty members in order to get faculty involved in the evaluation procedure.

Accountability. Addressing the issue of evaluation and accountability, Becker and Kogon (1991) stated that both issues have been serious concerns in higher education during the last decade. In fact, during the decade of the eighties, political leaders expressed anxiety over the lack of evaluation and accountability measures. The anxiety may have developed as a "direct consequence of expansion, for such measures would have been considered unnecessary in the

elite university system of the 1950s... More comprehensive and stringent evaluation could to some extent legitimize an expanded system with its more open access" (Becker & Kogon, 1990, p. 157).

Becker and Kogon (1991) then explained the difference between evaluation and accountability, stating "If evaluation involves the making of judgments about performance or behavior, accountability entails using judgments for the allocation of rewards or punishment or resources" (p. 168). They provided valuable insight into the increased need for accountability. Becker and Kogon (1991) pointed out that formerly the quality of research and scholarship was all that mattered, but, with the present climate, a professor's "performance as an administrator and as a money earner must be taken into account... Academics have therefore to consider carefully the opportunity costs of everything they do. The accountability is both more explicit and more diffuse than before" (pp. 172-173).

Becker and Kogon identified the new level of accountability that higher education faces by comparing the problems that institutions faced in the past with those problems that institutions must face in the present. In the past, it could be said that institutions were insulated from the whims of political and economic trends. However, Becker and Kogon (1991) determined that:

> The problems with which [Universities]...are now expected to contend are almost unrecognizably different from those which faced the much smaller and more insulated network of universities in the immediate

> post-war years. The degree of autonomy which they assumed, and the strong sense of freehold which individual academics felt able to enjoy, have had few parallels in contemporary higher education. The present-day system is called upon to defend its legitimacies and demonstrate its responsiveness to market pressures in a way which would have then seemed unimaginable. But whether or not externally derived innovation is thought to be a good thing, it is arguable that it has always been an endemic feature of the relationship between higher education and its wider environment. (Becker & Kogan, 1991, pp. 155-156)

Again, the literature has warned that change is the only thing that is certain, and higher education must realize that it too must change. Their conclusions seem to suggest that the present day climate of higher education calls for greater accountability by higher education institutions.

Becker and Kogon (1991) discussed three types of evaluation procedures currently used to evaluate faculty. The three types of evaluation procedures are performance indicators, peer review, and review by students. Performance indicators are quantitative forms of evaluation measurement, while the other procedures are qualitative. They contend that performance indicators in the evaluation process should be "used in conjunction with less cut-and-dried forms of evaluation, including peer review" (p. 160).

Yet, Becker and Kogon do not support the sole use of peer review either. They claim that peer evaluation will be inevitably colored by the personality of the reviewer conducting the evaluation procedure. Becker and Kogon (1991) pointed out that the degree of influence exerted upon the reviewer would be directly related to "the extent to

which reviewers are or are not colleagues in closely related areas" (p. 161).

Questionnaires are typically used to record students' evaluations of their courses and teachers. Becker and Kogon (1991) agreed with the practice of review by students, and, in support, stated, "students-- who were among other things expected (and sometimes explicitly trained) to develop sound judgement--were in fact capable of exercising that competence in commenting on their own academic fare" (p. 164). They felt that using student review recognized the capabilities of students to reach informed conclusions about instructors, just as they were expected to do with the coursework. They concluded therefore that review by students was a reliable measurement of the instructor's performance.

Staff Development

Staff development is an issue that faculty members will continue to confront in the nineties. Weimer's (1990) book, Improving College Teaching, had two themes. One theme was the present tendency to undervalue teaching in higher education, in spite of the importance of knowledge in an information based society. The second theme was the institutional imperative that the instructional developers implement administrative leadership policies that improve teaching. Unlike what the title suggests, Weimer does not

give practical tips for faculty members. He does provide a program of instructional development, and he does present specific procedures for ensuring that the administration adopts the program campus-wide.

Ellis (1991) designed a study to determine the professional development needs of new chairs as perceived by chairs. The majority of new chairs preferred to gain the needed knowledge and skills from outgoing chairs. In the absence of an outgoing chair, they preferred to have the supervisor train them.

Rosenberger (1991) suggested that one of the most ideal ways to make a staff development program endure would be for the institution to form a committee composed of faculty members and administrators to "make decisions on allocations of money for college projects, individual employee requests, and competitive grants. The committee does not have to approve every small routine request but should determine the purpose of the pools of money available for dedicated purposes" (p. 175).

Rosenberger (1991) identified several important areas for additional research, arising from her research on staff development. One area involved the relationship between the institution and the part-time community college faculty. She asked how community colleges implemented staff development programs for their part-time faculty by posing certain contextual questions about the staff development of part-time faculty members. Specifically, the questions she

asked of part-time faculty, were: "Do they perceive value in orientation programs, what is their role in program development, do they engage in professional development in another setting, and how do all these factors influence their teaching" (Rosenberger, 1991, p. 180)?

Another important area for research that Rosenberger identified was the developmental needs of the technical and support staff. She explained that these are the employees who have daily contact with students. Rosenberger (1991) posed these questions about their role at the institution. "What does higher education as a field know about the development goals and needs of these staff members? Are they accurately transmitting the goals and values of the community college to students" (p. 180)?

Woodberry (1991) conducted a study to determine how to improve the teaching skills of the novice community college instructors. He recommended that instructors be shown the "sources of information (e.g., journals reporting research on effective teaching) which are available to them" (Woodberry, 1991, p. 208). He contended that a staff development program needs to be provided for these part-time instructors in order to improve the quality of teaching in community colleges.

Scholarly Communication

Faculty members in higher education face a rapidly changing environment in the area of scholarly communication.

Reichel (1992) interviewed faculty at the University of Arizona and found that they do not foresee a totally electronic environment for scholarly communication. The faculty did, however, perceive the dominant impact that computers and electronic access will have on scholarly communication. The faculty members also expressed a desire that academic librarians continue providing original sources in their original format whenever possible. Reichel (1992), however, pointed out that "data are already much more likely to be available in the electronic format than they were a few years ago, and that this trend will continue" (p. 173).

Reichel examined the development of the role of the academic librarian in the area of scholarly communication. He recognized that during the last two decades, librarians have helped to "integrate library instruction into the curriculum as a fundamental aspect of undergraduate and graduate education" (p. 52) She proposed the electronic work stations that are becoming available to students and faculty members in libraries would cause potential users to demand the necessary training to use them. She also found that the younger generation of scholars is more receptive to electronic communication, while older scholars prefer the printed page. She agreed that librarians will take a more active role in the scholarly communication system, and they may "become part of research teams" (Reichel, 1992, p. 240).

Reichel (1992) discussed the need for more abstracts or better ways to retrieve information, and the need for

librarians to "codify the vast amount of information that is available on networks" (p. 202). She recognized the need for scholars to have ready access to information. Her conclusions demonstrate that improving search capabilities will save time in accessing information that, in turn, should benefit academia.

Reichel (1992) commented further on the expanding role of the academic librarian when she noted that due to the "increased emphasis on international research and collaboration...Academic librarian[s] need to become increasingly aware of the importance of access to material in languages other than English and the importance of translations" (p. 239). With the increase in collaboration with foreign researchers, faculty members will either need access to translations or they will need to become fluent enough to speak and read the foreign language. Hackman (1992) also explored the impacts of technology and the increasing force of globalism on teaching.

Hoh (1992) discussed collaboration among researchers, academicians and industrialists who have supported the creation of a national information infrastructure as a way to cultivate the "coupling" of talents. The National Research and Education Network (NREN) is on the cutting edge of developing a high-speed, high capacity telecommunications network. "A network of such mammoth proportion has the potential to impact the manner in which society operates" (Hoh, 1992, p. 24). He compared NREN to the interstate

highway system which was an investment in America's transportation system. Hoh (1992) pointed out that "NREN is an information infrastructure. Like the highways, it too will initiate societal change. NREN is expected to facilitate the fulfillment of many broad national goals, such as enhancing national competitiveness, productivity, and technology transfer" (p. 24). He contends that NREN will provide benefits that will aid in scholarly exchange among colleagues and that NREN will remove both time and distance from the research and development process. Hoh noted that the network NREN is like a "collaboratory" because the researchers are working in concert but at different institutions. Hoh (1992) stated, "NREN is expected to facilitate large-scale joint ventures among the Federal government, academe, and the private sector" (p. 26)

Personal Factors

Burnout

Burnout is an issue confronting faculty members in higher education in the decade of the nineties. The study by Brown and Ralph (1992) suggested that the majority of previous research has dealt with the symptoms of stress rather than removing the causes of stress in teaching. Their findings indicated the need to determine how to reduce stress and how to cope more effectively with stress that could lead to burnout.

Herbert Freudenberger, a clinical psychologist, wrote about burnout in 1973 after personally experiencing it. Freudenberger and Richelson (1980) described professionals experiencing burnout as over-committed, overworked, and over-dedicated, and in a state of fatigue or frustration caused by their extremely high expectations that are unrealistic. Their refusal to compromise these expectations results in a deep internal friction that depletes their vitality, energy, and ability to function. In 1975 Hans Selye, the foremost authority on stress, explained that, in spite of the opulent writings on stress and coping, there is not a ready-made formula that will suit everyone.

Dey (1990) studied sources of stress, using a 1989-90 national survey of undergraduate professoriate at 392 two-year and four-year institutions. The purpose of the national survey was to determine the level of faculty stress, and it was conducted by the Higher Education Research Institute at the University of California, Los Angeles. Dey (1990) analyzed these data and reported that time pressure, lack of personal time, followed by teaching loads, research and publication processes, and the review or promotion process were the most frequently recorded sources of stress. Dey found that women, particularly tenured women, had reported more stress from the latter three factors than men had reported. Dey noted that membership in a particular racial group was not a determining factor, but that subtle discrimination, the next most frequently

recorded source of stress, was reported most by minority women (23%), and reported least by caucasian men (5%). Furthermore, tenured faculty members had revealed more stress in the areas of committee work, colleagues, and faculty meetings than did nontenured faculty members.

Clouse (1982) described some of the devastating effects of burnout:

> It can destroy the professional and personal lives of individuals, rob organizations of productivity, and cheat the students of public and private educational institutions. It propagates negative feelings and despair within both individuals and organization and diminishes coping defenses. Professional burnout in education circles is now at an all time high....Many educators are expressing high levels of dissatisfaction with their current jobs. They speak of being helpless and hopeless in [their] work environment (p. 5).

Thus, burnout needs to be addressed by individual professors as well as by the institution in order to save professional careers, to maintain organizational productivity, and to restore vitality in the classroom. The avoidance of burnout will, in turn, benefit the student.

Clouse (1982) found that the process of burnout may progress through several stages. He explained that burnout usually begins in highly dedicated, enthusiastic, and committed persons who have a strong desire to be successful in their profession, coupled with a great need to help others. Their enthusiasm usually starts to falter when they recognize that their unrealistically high expectations cannot be met. Next, feelings of incompetence and inadequacy begin to appear, which cause them to feel anxiety and frustration. He identified some of the various sources

of frustration or stress in the work environment, which may contribute to the decline in the enthusiasm of the professional. "Some of these sources may be identified as individual worker characteristics, quality of family life, organizational structure, management processes and professional disillusionment are but a few of the factors that may lead to, or contribute to, burnout" (Clouse, 1982, p. 7). Clouse pointed out that professional sources of stress become apparent in the latter stages of burnout when previously enthusiastic professionals start to withdraw from their work situation. Furthermore, Clouse disclosed that burnout varies from person to person because it manifests itself in different symptomatic ways, through both psychological and philosophical manifestations. Clouse (1982) reported that "The physical signs of burnout are similar to those created by excessive stress. Frequent headaches, nervous tension, backaches, gastro-intestinal disturbances, sleeplessness, and exhaustion may characterize burnout" (p. 7).

Clouse (1982) noted that burnout may be seen as a process beginning with enthusiasm, progressing to disillusionment and, "Consequently, previously enthusiastic, idealistic, and dedicated individuals become aloof professionals whose attitudes and emotional states change drastically from initial employment to later years of employment" (p. 8). He contrasted burnout victims with the educators who are able to maintain enthusiasm throughout

their career and offered some suggestions to help retain the initial level of commitment and enthusiasm. Specifically, Clouse (1982) suggested that professionals rely upon "collegial support systems, close and continual examination of expectations, continued education, a firm understanding of motivations for entering a particular profession, a strong understanding of organizational theory and individual value systems" (p. 8).

According to Clouse's theory of burnout the next stage in the burnout process, following disillusionment, is frustration. Clouse (1982) made the important point, "Research indicates that educators may be experiencing a great deal more frustration today than at any time in history" (p. 8). He identified some factors that are contributing to an increase in the level of frustration among educators as the following:

1. Educators are taking the blame for society's ills.
2. Educators are experiencing an increase in violence in the work environment, which adds to their feeling of fear and the feeling of lack of control.
3. Educators sense a lack of reward and recognition.
4. Educators feel they lack decision-making influence.
5. Educators feel that they lack professional status.
6. Educators perceive a lack of respect by media and society.
7. Educators lack autonomy.

The next stage in Clouse's burnout theory is alienation. Clouse (1982) stated that:

> Alienation is a result of frustration experienced in the work setting from operational barriers, professional disillusionment and/or personal problems which interfere with provision of services.... Alienation is associated with detachment, withdrawal, and isolation within the work environment. It may be viewed as a coping mechanism for emotional and personal stress. (p. 10)

According to Clouse, the number of students and the high degree of responsibility for a large number of students are stress factors that promote "frustration, helplessness and the onset of withdrawal or detachment as coping mechanisms" (p. 10). He added that educators may emotionally detach in order to stop the pain associated with failure or to reduce the feeling of incompetence. He noted emotional detachment may result from the stressors of frustration and alienation, and that subsequently, educators may not maintain the high level of caring they initially experienced in the work environment. Clouse determined that when educators lose the emotion of caring, they may become withdrawn or they may detach from their work. According to Clouse (1982), "In the alienation stage the professional is robbed of job satisfaction, the educational process has lost a productive teacher, and the student has lost the opportunity to learn" (p. 10).

Burnout is a "no win" situation where those associated with the burnout victim lose as well. It is imperative that a study be conducted to determine the incidence of burnout

among the professoriate in order to prevent this catastrophic loss to academia.

Keeping the changes and the demands on the professoriate in mind, one can easily see that the responsibility of teaching in higher education may be an increasingly stressful situation which may increase the incidence of burnout among faculty members that are not coping with the added stressors.

Matthews (1985) proposed that in the future, education will be challenged to provide support for teachers to grow both professionally and personally. Teachers will need to learn to cope positively with stress in their professional and personal lives in order to avoid the pitfall of burnout. People-oriented professions experience a higher rate of burnout, and teaching is a people-oriented profession. Therefore, teachers will be prime candidates for stress and burnout unless preventive and corrective measures are taken. In order to determine what preventive and corrective measures are appropriate, there should be a study to identify those faculty members who are experiencing burnout and those who are just on the verge. Current methods of measuring burnout must be improved so that these teachers on the verge of burnout can be identified before they become victims.

Basler (1989) expressed concern about the incidence of burnout among the teaching profession and how burnout destroys sensitive, thoughtful, and dedicated teachers. He

contended that unless these over-zealous teachers begin to practice coping methods and use preventive measures against burnout, they will suffer burnout and education will lose quality teachers. Basler made several suggestions concerning how teachers may deal more effectively with stress. He identified individual and organizational preventive measures for coping with stress. First, he recommended that four to six teachers group together to discuss, identify, and attempt to find solutions to their problems.

Another support method suggested by Basler is a network support system in which teachers should attempt to establish professional relationships with other teachers. The purpose of the network support system is to reduce stress by providing more open communication within the network group. Basler (1989) recommended teaming an experienced teacher with a new teacher because, "Experienced teachers who have dealt with similar problems can provide an understanding and sympathetic perspective and offer suggestions on how to deal with potential sources of stress" (p. 10).

Time management is an important safeguard in reducing negative effects of stress. Basler (1989) noted the importance of control in a teacher's busy schedule when he said, "Time can be looked at as an endless series of decisions, small and large, that eventually change our lives. If inappropriate decisions are constantly made, frustrations, lowered self-esteem, and stress are usually

the end results" (p. 11-12). Basler suggested a five-step process for time management: make a time analysis, then set goals, prioritize those goals, delegate responsibility, and strategically break the goals down into small achievable steps.

Basler also listed several alternative techniques for coping with stress, such as progressive relaxation, prayer, meditation, humor, visualization, autogenics, and developing a hobby. According to Basler, organizations can also contribute to reducing stress in teachers by providing meaningful rewards and by showing appreciation. This approach can counteract the sense of lack of accomplishment and low morale which makes teachers vulnerable to burnout. He recommended that teachers be included in the decision-making process because the feeling of a lack of control makes teachers more susceptible to burnout.

Basler's study focused on the impact of stress and burnout in teachers. He made the important finding that there is a consensus among teachers that colleges and universities should include courses on behavioral management, discipline, and methods of dealing with stress as part of the teaching curriculum. Also, Basler (1989) made a suggestion that once stress is identified it should be immediately treated to avoid burnout because if the "stressors are not attended to and dealt with, teachers begin to become frustrated with a negative attitude" (p. 29).

Job Satisfaction. In a national survey of faculty members at two-year and four-year institutions, Russell (1990) reported that full-time faculty members were satisfied with their jobs as a whole and less satisfied with their institutional authority, salary, and the amount of support for their work. She found that women were even less satisfied than men on these three issues. Russell also reported finding that a majority of full-time faculty members were satisfied with their benefits, their colleagues, their workload, their academic freedom, and their institutional mission.

Baltimore (1991) conducted a study to assess faculty members' satisfaction or dissatisfaction with their work environment. She studied sources of stress among the four different types of higher education institutions: research universities, comprehensive colleges and universities, liberal arts colleges, and community colleges in the greater Los Angeles area. The data showed that the faculty members perceived their greatest career barrier to be discrimination (including sexism, racism and cronyism). In the area of stress, however, the data showed that time pressures proved to be most stressful to faculty members in higher education. The data from Baltimore's study showed that faculty members in higher education saw the success of their students as their greatest source of job satisfaction, while they reported that they derived their greatest personal satisfaction from family and friends.

Baltimore's study revealed important differences in the types and degrees of stress among the professoriate, based upon type of higher education institution. Based on the findings of the Baltimore study, it appears that faculty members at liberal arts colleges and comprehensive colleges and universities are experiencing more job dissatisfaction and are more stressed, while faculty members at research universities and community colleges are less stressed. Baltimore's (1991) study revealed that "issues which produced work-related stress were Time Constraints, Rewards and Recognition, Barriers to Career Advancement, and Professional Identity" (p. 96). Thus, Baltimore is in agreement with Dey (1990) that time constraints produce high degrees of stress.

Baltimore's (1991) data enabled her to construct a hypothetical profile of faculty members who are "less likely to be satisfied with their jobs but who are also apt to experience greater stress than the majority of their colleagues" (p. 97). She found that faculty members who were most "at-risk" were nontenured, of lower rank, younger, unmarried, responsible for research and publishing to gain tenure or to advance in rank, non-caucasian, and female. Baltimore's finding that the female faculty member was more likely to be dissatisfied supports Russell's finding that women faculty members were less satisfied than men faculty members. Baltimore's finding also supports Dey's finding

that minority women reported more stress than men faculty members.

Baltimore's study found that younger faculty members perceived their young age to be a barrier to advancement in their career, and single faculty members perceived their unmarried status as a barrier. Female faculty members perceived their gender as a career barrier. Non-caucasian faculty members believed that racial barriers blocked their career advancement. A few younger white males perceived that they were experiencing reverse discrimination.

Baltimore (1991) recommended that support be given to these "at-risk" faculty members who face real or perceived barriers. She suggested this support "be given to these individuals by their senior colleagues, possibly through a formalized mentor system, and that faculty be rewarded by their institution for the success of their proteges" (p. 100). According to Baltimore's suggestions, a more expansive role may be appropriate for upper-echelon faculty members in helping to prevent or minimize burnout among the individuals who face greater potential for burnout.

Another recommendation Baltimore (1991) made was that faculty members "should be made aware of their own vulnerabilities to stress...People can be psychologically 'inoculated' against the destruction and demoralizing effects of stress" (p. 102). By making faculty members aware of the factors that cause other faculty members stress, and by teaching faculty members successful stress

coping mechanisms, universities can reduce the incidence of burnout. Baltimore predicted that such a stress awareness strategy among faculty members would ultimately benefit students when she stated, "In addition, a thorough knowledge of stress and its damaging effects by faculty, will help them to recognize stress in their students" (Baltimore, 1991, p. 102). Since the data reported that "students' success" provided the greatest source of job satisfaction for faculty, this entire approach could lead to an improved teacher-student interaction, ensuring even more satisfaction for faculty members.

McLean and Clouse (1991) discussed a 1988 report by the Office of Educational Research in Improvement in their overview of burnout. As a result of their study, that concentrated on burnout among faculty members in higher education, they determined several ways to improve job satisfaction among community college faculty. Their recommendations included "encouraging variety in tasks, restructuring sabbaticals to facilitate retraining, and using salaries and bonuses to recognize teaching excellence" (p. 156).

Byrne (1991) conducted a study to determine the factors that contribute to burnout among all levels of educators. She found that educators at all levels share common stress inducing factors that lead to burnout. The common factors shared were time constraints, number of students, multiplicity of roles, lack of administrative/parent

support, and excessive administrative paperwork. She found that the publish/perish syndrome was very high on the rank-order of work-related stress factors, and that this stress factor is unique to the university professor.

Byrne found that both age and gender had an effect on the emotional exhaustion factor that leads to burnout. She discussed the traditional reason females demonstrate higher levels of emotional exhaustion than their male colleagues, which is that women are usually more responsible than men for meeting the emotional and physical needs of the family. However, Byrne (1991) also stated that another "factor contributing to the import of gender on emotional exhaustion may be that women are more likely than men to become emotionally involved with the problems of their students; this added strain again leading to increased emotional exhaustion" (p.205).

Age as a Factor. While Byrne's (1991) findings were pertinent only to university professors, they were consistent with the literature, in general, on the topic of age as a factor that leads to burnout. Younger teachers experience more emotional exhaustion than older teachers. Byrne (1991) found that age "also contributed meaningfully to perceptions of personal accomplishment for...university educators... younger educators exhibited significantly lower levels of perceived personal accomplishment than their older colleagues" (p. 206). She made the point that the stage of the educator's career apparently had an important bearing on

the educator's perceptions of his/her personal accomplishment.

According to Byrne, the type of student taught was also a contributing factor in the perception of personal accomplishments by university professors. She demonstrated the logic of this conclusion when she stated that "university professors teaching graduate students experienced a greater sense of personal accomplishment than those teaching undergraduate students cannot be considered surprising" (Byrne, 1991, p. 206).

Byrne felt smaller class sizes provided teachers a better opportunity to discuss topics with students. She found that these smaller class sizes, coupled "with the commonality of academic purpose, probably leads to a more positive sense of personal accomplishment" (Byrne, 1991, p. 207). According to Byrne's findings, lower pupil/teacher ratios might be one important measure that universities could take in resolving the educator burnout problem.

In summarizing her findings, Byrne (1991) stated that "gender, age, and type of student taught are highly salient background variables associated with educator burnout... [and] organizational factors related to the administration of educational institutions contribute weightily to teacher stress at all levels of the education system" (p. 207).

Ponquinette (1991) conducted a study to determine burnout levels among full-time faculty members at four-year, private, liberal arts colleges in the Chicago area. She

used the Maslach Burnout Form Ed (MBI Form Ed) developed by Christine Maslach, Susan E. Jackson and Richard Schwab. The MBI Form Ed is a 22-item questionnaire that measures three burnout subscales: emotional exhaustion, depersonalization, and lack of personal accomplishment. She found that 7.3% of the faculty members surveyed were experiencing a high degree of burnout on all three subscales, 2.0% were experiencing moderate burnout, and 21.5% were experiencing low burnout. Her data showed that 69.1% of the faculty had scores she could not categorize as clearly fitting into one of the types of burnout, because they had mixed scores. For example, 65.0% reported that they experienced high to moderate emotional exhaustion, while most of their scores in other areas did not reflect the same indication of a high burnout level.

Ponquinette (1991) pointed out that the mixed patterns in the subscale scores should not be disregarded because these scores could mean "that the faculty members may be in varying stages of burnout" (p. 104). She recommended therefore that administrators pay close attention to faculty members with mixed scores. Even though those with mixed scores had not been experiencing burnout at the highest level of the scale, their scores may have reflected that they were at a stage of burnout just as detrimental to their job performance as those faculty members who did score in the high burnout category. She also recommended that administrators take preventive measures to ensure that those

who scored in the mixed category can be spared from burnout. Ponquinette (1991) advocated, "It is imperative that they understand that burnout is the result of unmediated stress. Because it is a process that occurs over time, being knowledgeable of the stages of burnout can result in preventive measures being taken" (p. 116).

Ponquinette demonstrated agreement with Baltimore in suggesting that universities develop a mentorship program since it is the younger, nontenured (novice) faculty members who experience the most stress. She suggested mentors may relieve some stress associated with being a novice, nontenured, younger faculty member, and that such a mentorship program could ensure fewer faculty members leave the profession early due to burnout.

Ponquinette observed that a few faculty members reworded some of the MBI questions, others questioned the MBI response scale, others did not respond to questions and were critical of the instrument. Ponquinette's observations suggest there may be another burnout test instrument, such as the Burnout Assessment Inventory developed by R. Wilburn Clouse, that will inspire faculty members to be more responsive than they were to the MBI.

In 1991 Neumann and Finaly conducted a study of the determinants and correlates of faculty burnout in universities in the United States. They received 380 responses from faculty members in departments of education, physics, sociology and electrical engineering. Their study

explored "the relationship between support variables and burn-out indicators (emotional exhaustion and personal accomplishment) on the one end, and between burn-out indicators and their correlates (organizational commitment and research publication) on the other end" (Neumann & Finaly, 1991 p. 82).

Neumann and Finaly employed, as their method of study, a pilot study using 40 faculty members from research universities, 20 from social sciences and 20 from physical sciences, to identify what the subjects perceived as sources of work-related support. They were asked to choose from among the following: family; friends; colleagues; department chair; intrinsic aspects of the job; and extrinsic aspects of the job. They found the "three sources of support rated as either relevant or very relevant by at least 40 percent of the respondents were colleagues (65 percent), intrinsic aspects of the work (60 percent), and chair (43 percent)" (p. 83).

Neumann and Finaly explained their findings were consistent with previous research in that hard sciences, which face a somewhat certain environment, provide specific research guidelines and clear criteria by which new findings can be judged. Conversely, a field facing an uncertain environment provides a researcher with few or no guidelines, and research findings tend, basically, to be unanticipated.

Specifically, Neumann and Finaly found support indicators were most influential in determining emotional

exhaustion in physics (explaining 66%), but that they were least influential in determining exhaustion for those in sociology and education. The relationship between emotional exhaustion and recently published articles is strong in the physical sciences, and weak in the social sciences. They suggested, for example, that intervention in the field of physics might include "enhancing the perceived importance of faculty work by means of work redesign (e.g. job enlargement and job enrichment)" (Newmann & Finaly, 1991, p. 91). A similar example would be in electrical engineering, where collegial support is very important. There they suggested that a successful intervention might include an increase in the opportunities for informal socialization, informal seminars, and working papers.

Neumann and Finaly acknowledged that their study was limited, and they realized support indicators are not capable of explaining the whole faculty burnout syndrome. They recommended additional research be conducted to determine what additional predictors of burnout exist among faculty members in higher education. Perhaps the most apparent limitation would be the danger that the reader might view results that reflected the reliability of support as a predictor in fields with certain environments and might then assign a higher level of influence to support as a controller of burnout among those in fields with a certain environment.

Tenure. Bedeian, Ferris and Kacmar (1992) studied the relationships among tenure, age and job satisfaction. They found, for both genders, tenure is clearly a more stable predictor of job satisfaction than age. Furthermore Bedeian et al. (1992) remarked that "tenure seemingly affects satisfaction in a manner distinct from the effects of age" (p. 45). Bedeian et al. acknowledged this may cast doubt upon previous studies that linked a person's career stage and age with job satisfaction. This finding by Bedeian et al. seems to be in direct conflict with the findings of Byrne (1991) and Baltimore (1991) who found that younger faculty members experience more stress than the older faculty members.

It is possible, however, that there is no conflict in the findings at all when one considers the younger age of a faculty member usually occurs concurrently with the nontenured period of his career. The two approaches appear to represent a classical scenario of "six of one, half dozen of another", but Bedeian et al. (1992) supported their approach by stating that "past findings concerning age may well have resulted from the fact that age is at best a shorthand for other variables" (p. 45).

Bieber, Lawrence, & Blackburn (1992) discussed recent changes in the tenure process at the University of Michigan and found that scholarly output along with grant-getting has become almost the sole reward criterion. Bieber et al. (1992) stated, "The days of multiple criteria for the

promotion to full professor are gone. To reach the top rank, one must continually publish in highly regarded journals or with prestigious scholarly presses" (p. 34).

Worklife

Lincoln, Marshall & Austin (1992) determined that developing a greater understanding of academic worklife is critical since universities must address issues such as "a projected scarcity of Ph.D.'s who indicate a desire to enter the professoriate, understanding what makes professors currently in teaching and research positions satisfied or pleased with their academic working environments" (p. 4). Therefore, identifying the conditions that enhance or detract from faculty morale or job satisfaction would be an important contribution to higher education.

Lincoln et al. conducted their study to determine the quality of faculty worklife in a major research university. In their study they collected both quantitative and qualitative data. The purpose for this study was to improve campus communication and trust between faculty and administration. One of the suggestions was self-assessment by the faculty, but there were expressions of concern from both the administration as well as faculty regarding the collection, storage, and analysis of such data. The authors warned that "faculty who undertake a serious self-assessment should understand just how difficult such an effort will be if the administration is nervous about the

data ahead of time" (Lincoln et al., 1992, p. 11). According to the findings of Lincoln, et al., campuses that do not already have open communication between faculty and administration can benefit the most from faculty self-assessment.

Another lesson learned from the study by Lincoln et al. was the need to plan for differences in perception of the assessment program among the faculty of the various disciplines. Some faculty perceived the assessment program to be a way for the administration to "increase faculty participation in decision making and consultation, while others immediately evaluated the effort as a 'managerial tool', which would be used if the results and findings proved useful to the administration, and shelved if the findings did not" (Lincoln et al., 1992, p. 12). Due to the potential for differences in faculty perception, institutions that plan to conduct a study of faculty worklife "must find ways to convey what the purposes of the project are and how the data will be analyzed, with whom and in what form it will be shared, and to what uses it will be put" (Lincoln et al., 1992, p. 12).

Lincoln et al. learned from the study that it made a difference which faculty members were chosen to participate in the self-assessment program. In the ideal situation, administrators would make their selections based upon "credibility, for both the task force members and for the data to be generated...care [would be] taken to choose

faculty members who enjoyed widespread respect, or who possessed expertise in some arena, or who combined both factors" (Lincoln et al., 1992, p. 12).

Lincoln et al. found that the two major concerns voiced about the data were confidentiality and credibility. The task force decided that both quantitative and qualitative data should be collected to provide comprehensive information concerning faculty worklife. According to Lincoln et al., merging the qualitative and quantitative data bases had some political overtones and implications. In order to reduce the incidence of conflicts, Lincoln et al. (1992) found that "discussions which precede data collection, which confront and settle such issues prior to analysis and writeups, and which have agreements and discussions in writing forestall the formation of factions which support contending data bases" (p. 18).

In addition, Austin, Rice, and Spiete (1991) considered the decline in federal and state financial support for higher education as one of the problems that affected faculty members personally. Since salary increases have not kept current with inflation, faculty members' purchasing power has decreased. In fact, at some institutions, Austin et al. (1991) found that "budgets for faculty development have been trimmed, maintenance deferred, and the purchase of new equipment and books restricted. At the same time, budgetary constraints have been coupled with increasing federal guidelines, statewide planning, and calls for

accountability" (p. 1). Developments such as the decrease in personal spending power, and the new increase in demand for accountability may discourage prospective students from planning a career in higher education. It is obvious that these two conditions represent major potential stressors.

Austin et al. mentioned the increasing diversity of the student population. They foresaw extra demands on the professoriate because some students will "arrive at college with serious remedial needs... for which many [faculty] feel unprepared. Greater numbers of part-time adult students require faculty to make shifts in working schedules and approaches to teaching" (Austin et al., 1991, p. 2). Before the influx of part-time students, faculty teaching schedules were usually daytime schedules. Now, faculty teach nights and weekends to accommodate the new student body of working adults. This change in work hours is a potential stressor.

Austin et al. (1991) discussed the problem of impending faculty shortages. "At a time when large numbers of today's faculty are moving toward retirement, the number of young people choosing to prepare for professional careers is much smaller than in the past" (p. 2). The resulting larger workloads, due to fewer faculty members, might increase the stress in the lives of higher education faculty.

The problem may not be immediately critical, however, because the recent decision to remove the mandatory 65-year retirement age could encourage current faculty members to remain in the profession. Even with this five-year to ten-

year transition period, there will be an eventual shortage of faculty members in the professoriate unless sufficient numbers of students decide to enter the profession.

Austin et al. (1991) predicted a shift from faculty development to faculty vitality, and according to them, the "newer term 'vitality' addresses the challenge to maintain the freshness, enthusiasm, and creativity of the faculty members throughout long careers that for many have been unfolding in the context of a single institution" (p. 3).

Austin et al. found that the hiring policy at most of the institutions in the study did not severely curtail the hiring of graduates from the same institution. In fact, the study showed that up to 38% of the faculty was selected from graduates of their institutions. These institutions "did not get the impression that so large a percentage of graduates among the faculty led to intellectual or social inbreeding. It seems instead to have infused fresh vitality into the spirit of community" (Austin et al., 1991, pp. 24-25). It is reasonable to conclude from this study that these institutions believed that their graduates reflected a high personal interest and pride in the institution. Once hired, the graduates from these institutions probably were eager to promote the best interests of their alma mater.

Austin et al. (1991) identified the following four key factors that enhance faculty morale and job satisfaction in liberal arts colleges:

> First, they all have distinctive organizational cultures that are carefully nurtured and built upon.

> Second, they each have strong, participatory leadership that provides direction and purpose while conveying to faculty the empowering conviction that the college is theirs.
>
> Third, all of the colleges have a firm sense of organizational momentum--they are institutions "on the move." A number are marked by what Burton Clark has called "a turn-around saga."
>
> Finally, the faculty of these ten colleges have an unusually compelling identification with the institution that incorporates and extends the other three characteristics contributing to high morale. (p. 17)

In addition to the four key factors contributing to high faculty morale and satisfaction, Austin et al. (1991) found the following secondary elements: "faculty development programs, a broader institutional definition of scholarship, positive colleagueship, institutional policies that build on individual strengths, and strong institutional ties to the local community" (p. 17). These secondary elements also impacted faculty morale and job satisfaction.

Culture. In reference to the importance of a mission statement, Austin et al. (1991) conducted a survey to determine the top ten college communities with the healthiest faculty vitality and found that "the single most important hallmark of the ten colleges identified by the study is that each has a clearly articulated mission and carries forward a distinctive culture" (p. 17). Austin et al. (1991) gave a reason these liberal arts colleges have strong cultures when they stated, "the majority of these colleges are religious in character, with cultural roots in firm theological soil; they know where they came from. This

sense of history shapes their present and informs their planning" (p. 18). These ten colleges also had strong rituals in place. The following was one example of a campus ritual:

> Following commencement, Greenville has an Ivy Cutting Ceremony that goes back to the turn of the century. The graduates assemble in a large circle linked together by a strand of ivy. The president, in the center of the circle, cuts the ivy between each member--symbolizing the movement of the class away from the campus and into the world, with each retaining a part of that which bound them together in a common circle. (Austin et al., 1991, p. 19)

Another aspect of the culture of the ten successful colleges raised by Austin et al. is the tradition of instilling honors upon distinguished faculty members. As an example of such a tradition, Austin et al. (1991) noted that "at several of these colleges, buildings on campus were named after faculty members, known to generations of students, whose lives exemplify core values of their institution" (p. 20). This kind of recognition would be an encouragement for a faculty member not only to do an outstanding job teaching, but also to make a career with the institution. Also, "As a symbolic gesture, it gives dignity to the faculty role and is a clear statement of institutional priorities" (Austin et al., 1991, p. 20).

The successful college cultures also emphasized the importance of teaching students. The faculty of these colleges "know that their vocation is teaching and that this role is central to their institution. Disciplinary research, community service, and governance activities are

valued, but in relation to this primary agenda" (Austin et al., 1991, p. 20). This survey showed that when faculty members are assured that the institution values and rewards quality teaching, then faculty can properly prioritize their responsibilities with emphasis on teaching.

Faculty Morale. Participatory leadership on campus was a factor that highly contributed to faculty morale. Austin et al. explained the successful leadership styles that they found from their survey data. To their surprise they found that all ten administrators used participatory leadership. The administrative leaders empowered others by giving power away and thus inspired more loyal employees. Also, these administrators were willing to share information with faculty. The faculty members at these campuses were willing to hold faculty meetings more often, and the faculty also met with trustees regularly. Furthermore, "the ten exemplary colleges have leaders who have authority but do not 'dominate'...[and] in no sense do the faculty feel alienated from their institutions and their leadership" (Austin et al., 1991, pp. 22-23).

In the classroom faculty members reflect the loyalty and support they receive from leadership. A consequence of a successful participatory leadership is an especially responsible faculty. Austin et al. (1991) found that the "aggressively participatory leadership, characteristic of our ten colleges, works because faculty members are willing to invest an inordinate amount of time and effort in

institutional building... [and they] exercise the kind of organizational discipline required to make shared governance possible" (p. 23). This survey shows that actively involving faculty members in the decision-making process of the institution would improve faculty morale. With such active involvement faculty members will feel more like real stakeholders in their institution.

Bland & Ruffin (1992) conducted research to determine successful characteristics of a productive research environment. Not surprisingly, their findings correspond to the findings in the study by Austin et al. (1991) in the following areas: Each has a distinctive culture, uses participatory leadership style, has a climate of respect, and has clear organizational goals.

Perceived Role of Teaching

The literature was diverse on the various perceptions of what educators perceive the act of teaching to be, what it should be, and how it can best be conducted.

Teaching as a Moral Act. Christenson (1991), for example, developed the position that the act of teaching was a moral act. To begin with, Christenson proposed that faith is an essential ingredient in teaching. He defined faith as the indispensable dimension of teaching life. Christenson (1991) further explained his definition of faith as it relates to teaching when he said that the faith he spoke of was "faith in the fundamental worth of our

vocation, in the values that govern our relations with individual students and classes, and in the likelihood that at least some of the results we desire will be achieved" (p. 116). He first questioned why academicians do not discuss faith. Christenson (1991) then suggested, as the answer, the fact that scholars seem "more comfortable with hard facts, logical analysis, and readily observable skills than with intangibles like belief" (p. 116).

It was Christenson's premise that without these intangibles (the soul, faith and spiritualism), which animate discussion teaching, higher education lacks the enlightenment it claims to perpetuate. Without these intangibles "technique becomes mechanical, skills manipulative, and attitudes suspect" (Christenson, 1991, p. 116). Thus, he recognized that concepts like faith and belief can energize the learning experience, however, he conceded that academicians are not as amenable to the adoption of these intangibles as those in other careers may be.

Christenson declared, "I believe that teaching is a moral act. Ethical commitment must temper the balance we strike in selecting materials and working with them in class. Morality must shape our treatment of students" (p. 117). Christenson (1991) agreed with the late Professor Lon Fuller when he suggested, "We must distinguish between a morality of duty--that which is formally and/or legally

appropriate--and a morality of aspiration--a striving for excellence and idealism. The latter must govern" (p. 117).

Christenson believed teachers must have infinite patience with students, and they must respect and protect students during the learning process. He advocated the importance of inspiring students, and he agreed with Thornburg about the need for teachers to show positive belief in their students. Furthermore, Christenson (1991) believed that "the profession of teaching is crucial to the maintenance and advancement of civilization" (p. 116).

Thus, while Christenson does not adopt an approach to education that instills fundamental and religious morals, he does recognize a morality based upon excellence in aspirations. Although Christenson does not endorse a return to the purpose of the colonial college that Boyer (1991) suggested as a solution, Christenson does seem to favor a solution to racial tension, similar to the "minded relations" promoted by Kadish (1991).

Liberal Arts. Kerr (1990) addressed the relative importance of liberal arts education in his second scenario of proposed events that might occur in higher education in the 1990s entitled "Restoring Quality in General and the Centrality of Liberal Education in Particular." Kerr promoted a return to the basic liberal arts, but he realized most faculty and students of today do not agree with this objective when he said, "the students, instead, are flocking to the professions (the proportion of enrollments in the

arts and sciences has dropped by one-half in recent times)" (Kerr, 1990, p. 12). This prediction of change in direction of enrollments, if accurate, will increase the number of faculty members that higher education will need in the professional colleges while reducing the need for liberal arts and science professors.

Nonverbal Communication Skills. Neill (1991) addressed the practical need to teach non-verbal communication skills. He concluded direct training of specific skills (use of nonverbal skills to manage a classroom) is more effective than general training that does not point out the appropriate use of non-verbal communication skills. He also suggested these courses need to include anti-discrimination and role-play practice. Specifically, Neill (1991) found that "currently most courses include very little training in classroom group management skill, including nonverbal skills, and this needs to be increased. Children also need more practice with nonverbal and other interactive skills to prepare them for adult life" (p. 165). He does not support the "born teacher" theory; he contends that nonverbal communication skills and classroom group management skills can be learned by modeling.

Thematic Projects. Furthermore, Thornburg (1991) contended teachers need to realize students are born problem solvers. He gave an example of students who were given an opportunity to attack real problems and develop useful solutions. "Students in Monterey, California will work

alongside research scientists as they try to salvage the environmentally threatened Monterey dunes" (Thornburg, 1991, p. 110). If thematic projects become a trend, it will have an impact upon faculty members in higher education, especially as the projects spread into different research areas. This development will probably impact faculty members who are not directly involved with research as well. One also can conclude from Thornburg that as highly motivated problem solving students come to the campus, they will be more productive if their studies include projects with practical application themes.

Kolson and Yuen (1993) contend that the "hands on" approach to teaching and learning should not be limited to the sciences, and that it can be adapted to the humanities. They gave an example of a humanities research editing project at the University of Chicago--the works of Giuseppe Verdi. Kolson and Yuen (1993) stated, "While student-faculty research collaboration obviously is facilitated by proximity to important archival materials, faculty members at institutions without major research libraries must be more resourceful" (p. 9). This literature implies that professors at small liberal arts colleges might feel the additional stress of having to fashion research projects that do not require a great deal of travel. This raises the question whether highly skilled professors who adopt the hands-on approach will be tempted to move on to larger

universities, irrespective of salary offers at the smaller schools.

Life-long Learners. Jalongo (1991) stated, "The improvement of education is a human enterprise...[and] the highest purpose of teaching is to promote those types of learning that encourage [students] to continue to learn, not only inside the classroom but also outside the classroom and throughout life" (p. 3).

According to Tight (1991), there will continue to be an increase in the number of part-time students enrolled in higher education, thus creating the need to focus on services and courses for those part-time students. Tight (1991) sees higher education evolving into a "potentially lifelong system of education, drawing in, serving and affecting more people. It would no longer be a brief, once-and-for-all, post school, but school-like activity. It would be adult rather than adolescent" (p. 134). His view differs greatly from the present model, which requires students to meet standard entrance requirements aimed at keeping out students that do not show promise in successfully completing the program of study. His dream would be for higher education to develop a cafeteria approach to higher education, allowing students to decide when they would enroll in classes. The resulting openness to classes would then allow students to continue learning throughout their adult lives. He did not believe a shift to a cafeteria approach to higher education will be immediate,

but he did see the beneficial impact of starting the work experience before completing the higher education experience. Currently, some students are frustrated, when, after obtaining their degrees and entering the marketplace, they find that they do not enjoy working in their chosen career. Therefore, these unhappy graduates must reenter higher education to prepare for a different career or work in an unrelated field.

Referring to his suggested cafeteria approach to higher education, Tight (1991) acknowledged that his ideology of higher education is subject to criticism, admitting that his idea of lifetime students may be considered to be hopelessly utopian. He pointed out, however, that some changes are already taking place, albeit more slowly than he wished.

The transition from the industrial age to the information age will undoubtedly have a disruptive effect on the populace, considering the amount of retraining that might be required of the workforce. It is reasonable to expect that greater demands will be placed on higher education to help the populace adjust to this transition. Tight (1991) stated, "We do need a better educated, more adaptable and more self-reliant population if we are to maintain, far less develop, our position in the world" (p. 137).

Furthermore, Tight predicted that the traditional model of higher education currently in operation at most institutions will not accommodate the expected influx of

part-time students. Tight (1991) contended, "We will only attract more clients, and be of more use to them, if we introduce less rigid and more client-focused systems of provision" (p. 137). Referring to university planning, with servicing the student of the future in mind, Tight (1991) concluded that "part-time forms of provision would have a major role to play in achieving such plans" (p. 142).

Tight (1991) suggested that to serve the students of the future:

> We should be planning for part-time developments on all levels of provision...we should be planning for more flexible forms of provision... Students should be enabled to...alternate periods of part-time and full-time study. Modularization and credit transfer arrangements should be further developed. We should be encouraging regular and periodic involvement in continuing higher education throughout life.
>
> We should be planning for higher education based more on individual students' experiences and needs, linked to their work and community responsibilities. We should be offering them more say in the design, delivery and evaluation of their own education. (pp. 143-144)

Tight's ideals are timely, considering the increase in the number of adult students that may be enrolling in higher education. The traditional view of higher education, which emphasizes the importance of full-time study, has dominated prevailing thought and has resisted change. Since change is inevitable, higher education may need to give up some of its traditional attitudes and accommodate the part-time adult student.

Tight (1991) proposed that an expanding system of higher education is one that incorporates part-time higher education. Part-time education gives real life perspective to higher education and links it "with the society of which it is an integral and crucially important part" (p. 144). Tight's conclusions suggest that the methods higher education chooses to service the part-time adult student may encourage lifelong learning. Then, instead of having a student for four consecutive years, higher education may develop a new market area, the lifelong learner.

Academics for Athletes. Charles Young, Chancellor, University of California, Los Angeles, was concerned about strengthening the academic requirements for students to be eligible to participate in athletics. Young (1992) realized the importance of putting academics ahead of athletics and offered the following suggestions:

> We should insist that first-year students be free to concentrate on their studies. Under one proposal that merits serious consideration, freshman students who met the eligibility requirements of Proposition 48 could continue to develop their athletic skills by practicing --but not traveling or competing--with the varsity squads. After their freshman year, they would be eligible for four years of competition. Freshmen who were not initially eligible would be limited to three seasons of competition following successful completion of their first year. This system would serve the dual purpose of enabling students to hone their athletic abilities while building a solid foundation for their education. (p. 87)

This system would restore the proper emphasis on educating the student, which is the main concern of higher education.

Return to Creative Thinking. Thornburg (1991) foresees the need for many changes in teaching. One change he hopes

for is a correction of our nation's misguided emphasis on fact acquisition and recall of data. Thornburg found that the problem created by too much emphasis on fact acquisition and recall is that many students never receive adequate training in creative writing. As a result of this shortfall, it seemed to Thornburg (1991) like "ideas, ideas everywhere, but nary a thought to think" (p. 28)!

Thornburg believed the pendulum had swung too far in the direction of fact acquisition, and some educators were attempting to swing it back. He reported, for example, that some states (and gave California as an example) have revamped their curricula in order to find an equilibrium point, and teachers of language arts have been moving away from multiple choice questions, which only require fact acquisition, and are requiring more essays, which require creative thought. Teachers there are using fewer worksheets and multiple choice questions in order to inspire students to think more creatively. These are the examples Thornburg gave of educators who had realized "that, to write, one must first have an idea to express" (Thornburg, 1991, p. 28).

Technology. Another area of change Thornburg discussed was the use of technology in the classroom. He contended educators need to incorporate the best use of technology in order to encourage students to become actively interested in learning and to become self-directed learners. He disagreed with those who hold the opinion that, unless they had access to the newest computer hardware, students would not be able

to develop computer skills. He understood the challenges facing educators in teaching educational computer skills are not just related to learning the hardware. The real challenge is the development of the students' abilities to think and solve problems.

Thornburg (1991) stated, "Archimedes is reputed to have said, give me a lever and a place to put the fulcrum and I can move the world" (p. 29). Then Thornburg (1991) made an analogy, comparing the computer as the educational lever and the teacher's "insight and infectious love of learning... [as] the fulcrum" (p. 29). Thornburg (1991) pointed out that the important factor in the above illustration is the vision of the teacher because, "If the teacher has sufficient vision, any computer can be used in ways to support true educational discovery. If, on the other hand, this vision is lacking, the computer is likely to become nothing more than a desk ornament" (p. 29). Thornburg (1991) reasoned that one way a teacher might allow a useful educational tool like the computer to go unused would be in a case where the teacher viewed "the mind as a vessel to be filled rather than as a fire to be kindled" (p. 30).

Thornburg also pointed out that classrooms have been built around the idea of the teacher as content expert. He proposad that the classroom of the future needs to provide for a flexible seating arrangement, and each classroom should house all the latest audio-visual equipment and multiple computers. Thornburg would not approve of the

current tendency to house audio-visual equipment in the library, and it has not been the best method for providing students and teachers with easy access to the equipment.

Thornburg feared that the greatest misuse of computers by teachers would be the teachers' over-reliance on computers to assess student performance. Thornburg (1991) emphatically stated "until we break away from our reliance on inhumane multiple choice tests that fail to measure the skills we want our... [students] to have, we will have failed the needs of an entire generation of [students]" (p. 104). Educators have designed measuring tools, such as tests, to be easily scanned by computers in order for scores to be quickly generated, rather than designing the tests to reflect differences in learning styles among students, or to reflect their level of understanding, or to reflect their ability to express their level of understanding.

Distance Learning. According to Clouse and Miller (1992), universities are beginning to communicate with students using a two-way audio and one-way video satellite system. If fact, by using state-of-the-art interactive satellite technology a professor can teach multiple audiences in different sites anywhere in the United States, as well as in many foreign countries. Furthermore, by using an interactive educational satellite system, discussions can take place between students and the professor as if they were in the same room. Clouse and Miller (1992) contend that technology-based distance learning has emerged as "a

modern, novel, and innovative form of education." Clouse and Miller (1992) also state that "a current definition of distance learning implies an interactive relationship of teacher with student that hinges on technology support" (p. 1-2).

Clouse and Miller (1992) see today's college student as atypical compared to college students of the recent past. College students today are likely to be female, older, employed, married, and part time in attendance. They are motivated to enroll in distance learning classes because of reduced travel requirements and slower paced schedules. These are some of the more obvious reasons for students to be attracted to distance learning.

Wilkinson and Sherman (1991) explained that the popularity of distance learning as a form of education hinges on two factors: instructional delivery techniques and student demographics. They assert greater acceptance of distance learning will depend on a decrease in the cost of technology. In Clouse and Miller's (1992) opinion, promoters of technology-based distance learning do not foresee the technology as replacing teaching; instead, they see distance learning as providing the means to serve the increasing number of students who will need education during the change to an information oriented world.

They believe technology-based distance learning has arrived "just in time" to meet the educational need of

training students for an information based society. Clouse and Miller (1992) contend:

> The need for "just in time learning" and the development of world-wide learning environments will make it imperative to use technology-based learning systems for the 21st century. In order to educate for a world-wide economy and develop entrepreneurs for the 21st century, the United States must move towards an educational system that can transmit through time, space, culture, age, and diverse value systems. (p. 3)

Clouse and Miller mentioned various technologies that are available in today's society, such as broad band broadcasts, microwave, electronic mail, video conferencing, data base access, fiber optics, cable technology and full motion video, which will make it possible for professors to communicate with students at a distant location. Clouse and Miller (1992) found managers of higher education distance learning systems agree that technology-based distance learning "is a cost effective system for the delivery of education [and]....In higher education, they explain that without distance education, administrators would need to expand capital expenditures for campus facilities" (p. 6).

Higher education also provides distance learning to business and industry. Clouse and Miller (1992) gave an example of a business "initiating a graduate engineering program with a university. The instruction delivers two-way video and two-way audio instruction by compressed video technology over the company's fiber optics network" (p. 8). Furthermore, the same business received engineering courses by satellite from the National Technology University.

Clouse and Miller stated the higher education study respondents reported distance education is accepted by faculty, but these respondents concede that faculty job security may become an issue with the growth of distance learning systems. They also found the higher education participants in the study maintain that "accountability, planning, financial capabilities, and intellectual property rights are major issues in higher education distance education policy" (p. 10). Those responsible for addressing these issues are the college and university administrators who develop policy for technology-based distance learning. Furthermore, the informants believed quality instruction remains central to the future of distance learning. Clouse and Miller (1992) said, "The study indicates that the future direction of technology-based distance learning lies in two areas: (a) human relations and (b) technology innovations" (p. 11).

Clouse and Miller contend that, without a doubt, technology-based distance learning in higher education, as well as in business, will certainly increase America's ability to provide educational opportunities for its citizens, which in turn will better prepare a work force for the new century. "Our nation's ability to remain competitive in the global marketplace requires a better educated work force than currently exists. Technology has the capability to link higher education and business/

industry together to develop innovative, interdisciplinary, worldwide training programs" (Clouse & Miller, 1992, p. 12).

Findings of their study indicate faculty member's acceptance of distance learning as an alternative to traditional education and that they perceive it may be the wave of the future. However, faculty members held reservations concerning how distance learning may affect job security, tenure, copyright for the material developed, and compensation. Clouse and Miller were two of the developers of technology during the computer technology revolutions, and they saw history repeating itself again because many "of the same problems and concerns are raised today over distance learning technologies as were raised two and three decades ago related to computer-based technology." (p. 16). They predicted that new, more advanced technology, especially in the areas of fiber optics and compressed video, will provide more opportunities for interactive distance learning and multimedia computer systems which interface with CD-ROM, video disks, data bases, as well as advancement in computer technology, will impact distance learning programs. Clouse and Miller (1992) believed:

> Learning environments will then become possible throughout the world. Classrooms will no longer be defined as stationary nor a point in time. "Just in time learning" and "on education" will be available through the combination of fiber optics, compressed video, interactive television, and virtual learning environments. (p. 17).

They pointed out the need to develop socialization skills among students, which will be a more successful attempt to

integrate the new educational approach in higher education. Clouse and Miller predicted that technology-based distance education will require more marketing before the necessary acceptance throughout the general higher education community will be granted.

Motivation. It may even benefit education to change the name of the classroom to learning room since the term classroom portrays an image of the teacher as the focal point in the room, pouring knowledge into the students. Thornburg (1991) recognized that there are some teachers in the school that are already "adept at kindling fires--teachers whose students are motivated to excel in ways that move them far beyond the skill levels of their instructors. These are the athletic coaches. Their educational environments are designed for the express purpose of helping" (pp. 30-31) students succeed to the best of their ability.

Thornburg (1991) pointed out each student has a unique outlook on life, a different learning style, and a different level of desire for knowledge, and that it is best if the "role of the teacher...ranges from expert to coach to cheerleader" (p. 32). He even mentioned the difficult issue of control. Thornburg (1991) asked, "Are you afraid to let students loose with knowledge" (p. 34)? This raises the following questions: If teachers stop perceiving themselves as experts, will they feel they have lost control? Are teachers ready to give up control as experts

and become coaches or cheerleaders? Will teachers be able to perceive the benefit of switching roles for different students and different situations?

Christenson (1991) referred to the ideal environment for education when he described a true learning community as a place where:

> Diverse backgrounds blend and individuals bond into an association dedicated to collective as well as personal learning. The students seem interested in one another and the academic assignment of the day. And their dialogue has the open-ended quality of exploration. Speakers not only present points of view but test and modify their ideas; instead of doggedly defending personal conclusions, they listen to one another with interest, not fear. Differences of opinion produce inquiries, not disputes. (pp. 19-20)

Christenson has described an ideal condition that would prove beneficial outside the classroom as well. The bonding Christenson advocates is similar to that which Goodenough promoted in the field of medical education.

Closing

A review of the literature on issues confronting faculty members in higher education reflects an environment of change that has seldom been exceeded. Areas such as funding, tax treatment, the information explosion, national fiscal policy, fluctuations in student and faculty populations by race, gender, and background are all changing at such a rate they are on the verge of becoming unknown variables. Without a plan, there is uncertainty. Where there is uncertainty, there is stress.

Institutions of higher education are called upon to plan for every contingency, from provisions for punishment for acts of violence on campus, to avoidance of financial disaster if Congress or the economy should move adversely. In an environment of rapid change, plans need to be flexible. Yet, the need for establishing a reasonably constant mission statement, which addresses each rapidly changing area, is becoming increasingly important, while simultaneously growing more difficult. This could be the number one dilemma facing higher education, and this is the reason that successive studies on all issues confronting higher education are necessary. Solutions that worked fine two years ago may be totally ineffective now.

Conflicting and competing forces are adding to the dilemma confronting higher education. Establishing the mission of the institution can be viewed as a delicate balancing act, or even a juggling act. Whether curricula should be more geared to practical application or to theory, whether research should receive greater emphasis than teaching, and whether publishing should remain a principle determinant in granting tenure are just a few examples of the conflicts which higher education faces.

Not all literature on the issues affecting the professoriate spell gloom and doom. Some writers predict that present and anticipated changes will provide the impetus for long overdue changes within academia. Solutions, however, can create problems that require

additional solutions. For example, where the number of faculty members who teach may be declining because of emphasis on research, a solution might be to shift that emphasis. Funds are limited, however, and the research mission might suffer as a result of a shift in emphasis.

Research universities can hardly afford to allow their research mission to suffer since research is one of the suggested solutions to the problem of limited funds. Collaboration between universities and private industry or between universities and the government can lead to important new breakthroughs that support a sagging national economy and bolster the financial statements of the institutions involved. A shift back to emphasis on research could undermine the teaching mission, and this is just one example of how solutions can lead to new problems. This reality is repeated time and again as a recurring theme in the literature.

Studying each example of the conflicting and competing needs of higher education seems similar to studying a juggling act, or even a chess match. Additional study is essential, if for no other reason than because once workable solutions can lose their effectiveness in a rapidly changing environment. Thus, higher education should project solutions for the projected problems it may face. Since no one can read the future, these projections, when taken together, will serve as a planning tool, at best, for higher education. If knowledge reduces uncertainty, then any

additional studies that provide up-to-date insight should be helpful in reducing the incidence of stress-related burnout.

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